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WATER WORKS PUMPING PLANT, ROANOKE, VA.

ROANOKE'S PUBLIC UTILITIES

ROANOKE, VA., is what is known as a railroad town, being largely populated by employees of the Norfolk and Western Railroad, which has its general offices and shops located there. During the 25 years of its history it has grown to a population of about 32,000. It is a beautiful and well kept city, which is probably largely due to the fact that about 90 per cent. of the homes are owned by their occupants.

One of the most interesting features of the city is its water supply, which is owned by a private company. The water is furnished by a single mammoth spring which gushes from the foot of Mill Mountain. The water is clear, cold and pure, and is very satisfactory for drinking purposes, although not entirely so for manufacturing uses. The spring furnishes about five million gallons of water per day, which is about double the amount now being used. It discharges into a large concrete-lined well or pond, the overflow from which forms a small stream. A reservoir is located on the side of the mountain 175 feet above the city. Pumps

draw the water from the pond at the spring and force it into a main, one end of which leads to the reservoir and the other to the city; the pumping being thus on the direct-indirect system.

The Roanoke Railway and Electric Company was for a number of years the only party supplying electricity in the city, and its latest contract for street lighting was at the rate of 21 cents per light per night, or \$76.65 per year. Until recently it supplied commercial electricity at 15 cents per K.W.H. About five years ago the Roanoke Water Power Company received a franchise from the city and proceeded to furnish current generated by water power at a dam which they built seven miles below the city. The effect of the competition thus created has been that current is now being sold at 4 cents per K.W.H. for lighting and as low as 2 cents for power purposes. A few months ago, when new bids were received for lighting the streets, the old company bid 16 1-4 cents per lamp per night and the new one 13.39 cents, for a five-year contract beginning November first.

Little in the way of public improvements had been done until about two and one-half years ago; but since then about three miles of brick pavement has been laid and house and storm sewerage systems have been constructed. Street grades also have been established and many of the streets graded to the adopted lines. The city voted a short time ago to issue bonds in the sums of \$200,000 for a new City Hall, \$100,000 for sewers and \$500,000 for street improvements. When this work has been completed Roanoke will be one of the most modern cities in Virginia.

A few years ago City Comptroller W. E. Thomas installed the Universal System of public accounting. Recently a complete audit of the books was made by Howard C. Beck, of Detroit, Secretary of the National Association of Comptrolling and Accounting Officers, whose report was gratifyingly complimentary to the method of accounting and the finances of the city.

Novel Standpipe Roof

MORE or less successful efforts to relieve the ugly monotony of steel standpipes are made from time to time, chiefly in the form of ornamentation at the top. The advantage of roofing over a standpipe to exclude dust, birds and other matters flying in the air, suggests the utilization of this as a means of effecting such ornamentation. An illustration of this is shown in the accompanying photograph, the standpipe depicted having no remarkable features excepting the roof and the spiral stairway. This standpipe was built in 1906 for the U. S. Navy department at Lake Denmark, N. J. It is 16 feet inside diameter and 80 feet high to the top of the tank proper. The roof has a pagoda outline, the surface being divided into spiral corrugations which produce a pleasing effect. The construction of this roof was an exceedingly difficult piece of



Works were the contractors for this standpipe.

difficult piece of sheet metal work and somewhat unusual for manufacturers of standpipes and tanks. The roof is supported on eight trusses formed of 3x4x3/8 inch T's, and angle iron purlins were used in the construction in considerable numbers. The top of the tank under the roof is covered with flat sheet iron supported on a system of beams, with the intention of making it practically tight. The brackets which are seen under the eaves of the roof do not support this, but merely serve as ornaments. The Dover Boiler

Baltimore's New Sewage Pumps

WHAT are believed to be the largest pumping engines which have yet been constructed for the lifting of sewage are now nearing completion in the works of the Bethlehem Steel Company and are to be used in lifting the sewage of Baltimore from the main collecting chamber, through the main outfall, to the septic tanks and sprinkling filters which will be used for its treatment. There will be three pumps, the rated capacity of each being 27½ million gallons per day under normal speed, with a possible emergency capacity of 44¼ million gallons per day, the engine speed in the former case being 20 revolutions per minute and in the latter 30 revolutions per minute. The head to be pumped against is 72 feet, which is believed to be the greatest lift against which any sewage pumping engines have ever worked. The cylinders of the pump are 22", 42", 62", with a 60-inch stroke. The plungers are 40¼ inches in diameter with a 60-inch stroke. The valve chambers are the largest which have ever been built, being 7 feet inside diameter. The valves are of the flap type, faced with rawhide leather. These engines will operate with a steam pressure of 160 pounds per square inch. The engine from foundation to extreme top will be 52 feet high, and it will occupy space of about 34 by 24 feet. These pumping engines are being built by the Bethlehem Steel Company of South Bethlehem, Pa., the contract price being \$450,000.00, which includes all accessory machinery, boilers, etc. The contract was made December 12, 1906. The plant will be housed in a pumping station which is being constructed by the Noel Construction Company of Baltimore at their bid of \$298,955.

Engineers' Estimates and Actual Costs

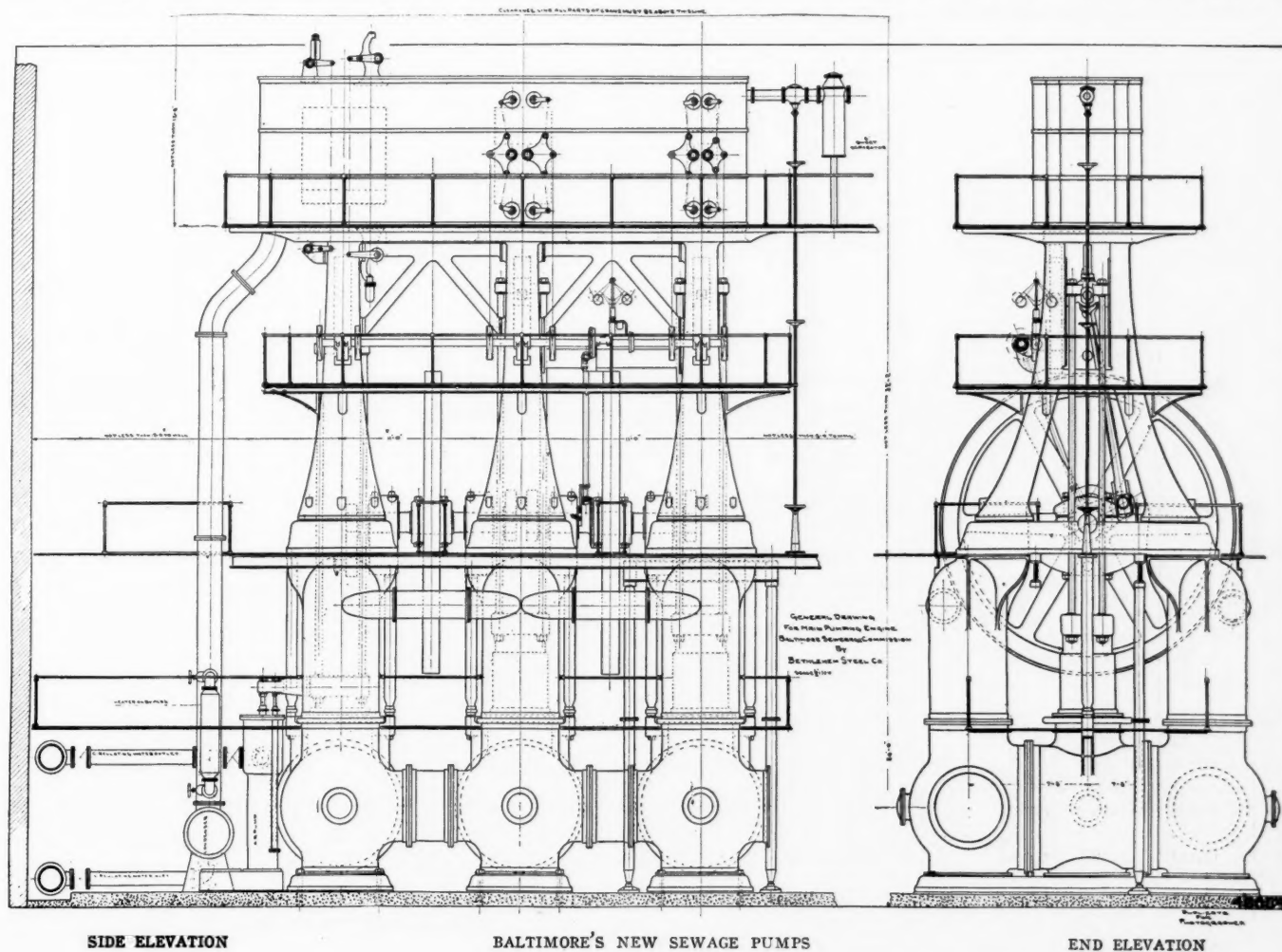
THERE is a general popular opinion that the actual cost of any construction undertaken by a municipality will invariably exceed the engineer's estimates, 25 to 50 per cent. being considered by many a conservative allowance for such excess. In the report of the city engineer of New York (whose real title is "Chief Engineer of the Board of Estimate and Apportionment") for the years 1906 and '07, is presented a table showing the estimated and actual costs of all sewers, grading and paving done in the various boroughs during the six previous years. This shows that during this period sewer construction in Manhattan was estimated to cost \$887,340.06 and actually cost \$1,107,423.11, an excess of 26.2 per cent. The grading cost, \$716,440.11, which was 11.5 per cent. in excess of the estimate. The paving cost, \$982,925.17, which was 15.5 per cent. less than the estimate. The excess in the cost of sewers and grading shown by these figures would seem to justify the opinion above referred to. But the other four boroughs show an entirely different state of affairs. In Brooklyn the sewers cost \$3,030,543.22, which was 5.2 per cent. less than the estimate. The grading cost \$1,368,221.30, which was 3.1 per cent. less than the estimate. The paving cost \$1,820,596.29, which was 13.1 per cent. less than the estimate. In the Bronx, sewers cost \$1,773,768.27, which was 0.2 per

cent. less than the estimate. The grading cost \$3,435,977.10, which was 4 per cent. less than the estimate; and the paving cost \$1,680,473.36, which was 17.6 per cent. less than the estimate. In Queens, sewers cost \$174,938.70, which was 4 per cent. more than the estimate; grading cost \$484,204.13, which was 9.9 per cent. less than the estimate. Paving cost \$239,625.06, which was 20.7 per cent less than the estimate. In Richmond, sewers cost \$74,353.81, which was 29 per cent. more than the estimate; grading cost \$24,677.15, which was 2.8 per cent. less than the estimate; and paving cost \$126,573.93, which was 14.9 per cent. less than the estimate.

These figures are based on 1,466 contracts in five boroughs during six years. The total actual cost of these was \$17,050,740.71, and this was 5.4 per cent. less than estimated costs of the same. One encouraging feature is that during the later years there was less under-estimating than during the earlier ones. In Manhattan the actual cost of all the work for a given year has not exceeded the estimated cost since 1903. In Richmond the sewer estimates have been under the actual cost in every year but one, but the amount of the under-estimate was slightly less during the latter half than during the former half of this period. It will be seen that the under-estimating was largely due to uncertainty as to conditions; or at least was greatest where such uncertainty was greatest. In sewer construction, where conditions which would be met underground could not altogether be foreseen, the

under-estimating was most common and its amount was greatest. In grading, where the amount of rock which would be encountered could not always be foreseen, there was also some tendency to under-estimate. In paving, on the other hand, where practically all conditions could be foreseen, there were but two instances in which the actual cost exceeded the estimate. It is somewhat remarkable that the percentage of actual to estimated cost in paving in the several boroughs should be so nearly uniform, the average of all being about 84 per cent., while the maximum was 86.9 and the minimum 79.3.

The above would seem to indicate that among the scores of engineers responsible for estimating on work in Greater New York there is no tendency to intentionally under-estimate the cost of proposed work, but that the tendency is rather to over-estimate it by approximately 15 per cent. On the other hand, if we assume that the sewer department is equally anxious to make their estimates sufficiently high, we must conclude that they have not profited sufficiently by experience and are lacking in the kind of judgment required for this branch of their duties. Taken as a whole, however, this statement, based as it is upon nearly 1,500 contracts, estimates for which were the work of several scores of engineers, would seem to indicate that while an occasional estimate might be from 25 to 50 per cent. too low, engineers' estimates are generally very reliable and somewhat in excess of the actual cost rather than otherwise.



SEWERAGE STATISTICS

Collected from Twenty-four Cities—Form Recommended by Boston Society of Civil Engineers—Details of Mains and House Connections—Quantity of Sewage

LAST week we presented the form recommended by the Boston Society of Civil Engineers for the tabulating of sewerage statistics, which, as we then stated, has already been adopted by at least twenty-four cities. We are able to publish this week the statistics from these twenty-four cities for the year 1906, covering the first part of this form, which give the information concerning the general features, collection, house connections, catch-basins and quantity of sewage discharged. In later issues we expect to give the data from the same

cities which apply to the remaining part of this form, covering pumps, disposal and finances. These statistics were collected by a committee of the Sanitary Section of the Boston Society of Civil Engineers and presented to that section in May last. The committee urges the adoption of this form by most of the cities of the country and we heartily second this, as also their further suggestion that annual statistics based upon this form be inserted in the annual reports of the sewer departments of all cities. Three or four cities have already adopted

TABLE SHOWING DATA (FOR THE FISCAL YEAR 1906) RELATIVE TO

Reference No. (For key see page 54)	GENERAL						METHOD OF DISPOSAL	COLLECTION							
	Population [Census of 1905]	Total Area of City or Town [Sq. Miles]	Area Served by Sewerage System [Sq. Miles]	COLLECTION SYSTEM				SEE FOOTNOTE*				Linear Feet Extended during Year	Number of Inverted Siphons	Number of Manholes	
				For Sewage Only [Miles]	For Sewage and Surface Water [Miles]	For Surface Water Only [Miles]		Linear Feet Stone	Linear Feet Brick	Linear Feet Concrete	Linear Feet Pipe				
1	9,668	5.50	1.70	26.70	.....	6.20	Metropolitan System.....	A.....	.....	.....	141,185	258	2	536
2	7,774	.....	.....	14.00	.....	.....	Metropolitan System.....	B.....	.....	.....	32,740	.....	.....	.....
3	(g) 29,340	3.32	2.90	(d) 8.90	(d) 4.40	(d) 5.00	Metropolitan System.....	A.....	3,460	.....	72,345	1,000	.....	630
4	(g) 107,911	(e) 39.87	.....	.....	4.00	.....	Tide Water.....	B.....	4,400	.....	103,550	1,750	.....	310
5	33,021	28.18	2.03	.....	35.97	.....	Nashua River.....	C.....	11,840	.....	72,500	190	.....	220
6	12,012	18.10	2.50	2.50	.....	.....	Settling Tank and Sand Filters	A.....	400	9,360	39,000	6,400	2	859
7	37,830	32.00	3.40	3.20	39.20	0.80	Merrimac River.....	B.....	4,599	106,207	(f) 2,933	241,668	7,620	2,964	
8	2,048	5.54	0.50	4.18	.....	1.3	Septic Tank and Sand Filters..	C.....	23,261	.....	166,666	1,484	.....	482
9	14,510	3.91	2.00	21.00	0.00	3.24	Metropolitan System.....	A.....	.....	.....	118,261	8,190	4	65
10	(h) 9,000	18.00	2.00	20.00	0.00	7.00	Lake Winnisquam.....	B.....	.....	.....	17,060	.....	.....	580
11	70,050	6.75	2.95	.....	63.00	0.75	Merrimac River.....	A.....	41,300	2,200	103,500	2,175	.....	18
12	94,889	14.20	10.00	1.00	97.23	1.50	Merrimac River.....	C.....	.....	2,300	1,900	2,067	.....	81
13	14,072	21.00	1.25	24.9	.....	5.5	Sand Filters.....	A.....	.....	.....	22,900	.....	.....	414
14	23,898	33.50	4.00	.....	44.50	0.50	Merrimac River.....	B.....	.....	.....	110,880	3,189	.....	392
15	(i) 79,078	19.33	6.00	0.43	71.12	0.85	Tide Water (40 outlets).....	C.....	1,750	.....	13,300	800	.....	50
16	(g) 22,000	6.50	2.00	28.00	.....	.....	Tide Water.....	A.....	2,640	.....	105,600	1,000	3	1,176
17	36,827	18.00	6.68	101.88	.....	53.69	Metropolitan System.....	B.....	.....	.....	36,960	1,500	.....	24
18	43,381	8.94	2.15	.....	51.86	.....	Part by Sand Filters; part by dilution.....	C.....	103,600	.....	228,623	11,582	1	31
19	18,478	5.90	3.39	36.14	.....	5.20	Septic Tanks and Contact Beds	A.....	1,531	.....	5,260	3,090	.....	492
20	(g) 75,000	38.00	7.00	0.18	106.16	0.13	Connecticut River.....	B.....	6,125	167,000	513,390	10,819	.....	694
21	26,239	13.56	2.70	41.28	0.0	12.65	Metropolitan System.....	C.....	.....	.....	8,140	176	.....	671
22	11,202	4.17	2.00	32.39	0.0	8.11	Metropolitan System.....	A.....	.....	.....	134,950	2,200	.....	2,616
23	13,639	42.00	2.70	26.83	.....	11.10	Westfield River.....	B.....	.....	.....	258,504	.....	.....	668
24	128,135	31.42	7.20	73.99	63.00	42.82	Chemical Precipitation and Sand Filters	C.....	700	.....	1,672	.....	.....	1,390
								A.....	1,106	98,286	58	283,250	2,457	294
								B.....	671	.....	147,169	13,603	.....	37
								C.....	.....	.....	703	.....	.....	855
								A.....	55,668	2,638	479,620	6,867	4	570	
								B.....	33,490	15,743	220,037	11,740	1	86	
								C.....	41,257	1,031	231,524	3,854	.....	517
								A.....	.....	.....	190,840	14,072	1	128
								B.....	1,250	3,695	22,485	920	.....	6,647
								C.....	2,519	143,727	1,164	413,070	6,917
								A.....	9,575	.....	208,388	9,711	2	.....
								B.....	2,098	6,901	1,753	53,201	400
								C.....	.....	.....	171,019	5,071	4	.....
								A.....	4,041	1,760	37,300	2,383	1	.....
								B.....	.....	.....	141,671	2,931	1	.....
								C.....	21,295.5	.....	37,169	4,319	.....	.....
								A.....	71,914	.....	318,384	5,496	7	.....
								B.....	98,472	2,429	230,736	3,944	6	.....
								C.....	17,160	57,130	3,432	147,840	5,855

*A. For sewage only.

*B. For sewage and surface water.

*C. For surface water only.

(d) Acres.

this suggestion. The Society will gladly furnish to cities applying for them copies of the form bound in a pamphlet, to be used by the sewerage departments in the ways indicated.

In addition to the information given in the tables, a number of items of information were furnished which were not subject to classification, or were too lengthy for insertion in the table, and these are given below:

Flushing.—In fifteen instances the pipes are flushed by means of direct connections or special hose connections with the water mains. Flush tanks are used in four places, and reports from two cities state that no regular method of flushing is followed. In one case the desired result is effected by backing up the sewage in the manholes and then allowing it to flush rapidly through the pipes.

Cleaning.—The methods employed for the cleaning of sewers vary to a considerable extent. As it has been found rather diffi-

cult to make a summary of this information, it has been given in full.

ARLINGTON, MASS. A special kind of brush is used which is drawn through the sewer from one manhole to another.

DEDHAM, MASS. Cleaning is effected by flushing and scraping.

EVERETT, MASS. The Healey sewer cleaning machine is used.

FALL RIVER, MASS. The pipes are cleaned by flushing through connections with city water mains.

FITCHBURG, MASS. The material accumulating in the sewers is intercepted at manholes and removed with a shovel and a pail. The Healey sewer cleaner is also used to some extent.

GARDNER, MASS. The sewers are cleaned by flushing through connections with town water mains. Small sewers are also cleaned by the use of rods; and the larger ones by the use of steel buckets dragged between manholes.

HYDE PARK, MASS. Cleaning is done in part by flushing, and partly by the use of the Healey sewer cleaning machine.

LACONIA, N. H. The sewers are cleaned by flushing through connections with city water mains.

SEWERAGE AND SEWAGE DISPOSAL IN TWENTY-FOUR CITIES AND TOWNS.

COLLECTION—Continued)										HOUSE CONNECTIONS							
Number of Automatic Flush Tanks	Number of Direct Connections with Water Main for Flushing	Number of Entire System Flushings during Year	Cost of Flushing per Mile	Cost of Cleaning per Mile	Number of Stoppages	Miles of Permanent Under-Drains	Number of Storm Overflows	METHOD OF VENTILATION	By Whom Made	Sizes [Inches in Diam.]	Number Made during Year	Linear Feet Laid during Year	Linear Feet Discontinued during year	Total Miles in Use	Average Cost per Foot Connections Made during Year	Number of Stoppages Coming to Attention of Dept.	Reference No. for key, see p. 54
1	60	6	\$0.75	\$4.00	3	5		Manhole covers.....	Town.....	5	64	3,911		11.25	\$0.55	3	1
		1						Through Plumbing system.....	Contractor.....	5	52					2	2
	3	2	12.83	5.00	6			{ Manholes.....	Licensed drain-layers	6	106	4,420		31.00	0.60	6	3
		2		93.40			1	Perforated manhole covers.....	Licensed drain-layers	6	145	3,625				49	4
							6	Perforated manhole covers.....	City.....	5	47	1,900			0.40		5
					2	3			City.....	5	93	4,648		8.50	4.23	3	6
							4	Manholes and catch-basins.....	Licensed drain-layers	5	88						7
6		2			2	12		Covers, house-stacks and catch-basin openings.....	Draper Co.....	6							8
86	86	2	6.50			1		Stacks through roofs.....	Contractor.....	5	123	6,028	40	9.90	0.60	4	9
					10			Open outlets and perforated manhole covers.....	Licensed drain-layers	4	63	2,500				5	10
			1.95	3.60			8	Perforated manhole covers.....	By plumbers & others	6	176				0.50	75	11
									Private contractors..	5 to 8	211	10,500				59	12
	102	12						Manhole covers.....	City.....	5	36	1,500		1.40	0.42	10	13
						0.5	6	House connections..	Licensed drain-layers	4 to 8	39						14
						1		Manhole covers and house connections.	City.....	5 to 10	322	12,046			0.48	175	15
	4	4			4	2		Perforated manhole covers.....	Plumbers.....	6	290						16
189	13		9.80	27.50	85.04	3		Perforated manhole covers and house connections.....	City and contractor.	5 to 8	107	8,599	300	67.50	0.65	75	17
124	168	3	0.45	0.37	57	1.7	16	Perforated manhole covers.....	By property owners.	6	172	4,300		17.43	0.60		18
107	9		20.33		2	2.42		House connections..	Licensed plumbers..	4	261				0.32	3	19
	367	26	20.28	16.08			15	{ Manhole covers....	City.....	6 to 8	269	6,725			0.48		20
	115	2	8.46	1.90	8	0.57		Perforated manhole covers and house connections.....	City.....	4 and 5	82	5,685	147	40.22	0.42	79	21
	59	2	5.30		2		2	Direct through house-stacks.....	Town.....	4 and 5	36	1,966			0.82	43	22
									Plumbers.....	4, 5 & 6	50						23
7	25	4	12.16	48.45	1		34	Through manholes.	Licensed drain-layers	6	399	21,770	316	118.50	0.50	17	24
2	54	3				1.13		{ Only by perforated covers on manholes.									

(e) Land and water.

(f) Stone and brick.

(g) 1906.

(h) 1900.

Reference No.	CITY OR TOWN	CATCH-BASINS					DISCHARGE OF SEWAGE							
		Number of Catch-Basins	Number Catch-Basins Cleaned	Av. Amt. Material Re- moved per Catch-Basin [cu. yds.]	Cost of Removing Material per Cubic Yard	Cost of Removing Material per Catch-Basin per Year	Estimated Population Using System	Number of Buildings Connected	AVERAGE NUMBER GALLONS					
									Daily Discharge for Year	Daily Discharge for Each User	Daily Quantity Factory Waste	Daily Leakage into Sewers	Daily Leakage per Mile of Sewer	
1	ARLINGTON, MASS.	184		4	\$0.50	\$2.00	6,600	1,030						
2	DEDHAM, MASS.													
3	EVERETT, MASS.	500	440	9	0.52	5.00	28,640	4,500	(k) 5,300,000	(k) 185				
4	FALL RIVER, MASS.	898	2,254	2.76	1.46	4.04								
5	FITCHBURG, MASS.	700		3.63	0.77	2.66	24,000	2,800	(k) 2,800,000	(k) 116				
6	GARDNER, MASS.						7,500	917						
7	HAVERHILL, MASS.													
8	HOPEDALE, MASS.						2,250±	(o) 213	(l) 144,000					
9	HYDE PARK, MASS.	92	80	2	0.75	1.50	7,520	1,655		(k) 50		(k) 400,000	20,000±k	
10	LACONIA, N. H.	500	450	0.5			8,000	972						
11	LAWRENCE, MASS.	1,100	2,840	2	0.93	6.04	67,886							
12	LOWELL, MASS.	3,364	3,364	1.50	1.00	1.50								
13	MARLBOROUGH, MASS.	655	1,310	0.25		1.46	10,700	1,695	l 580,000 Av. l 1,490,000 Max. l 296,000 Min.	l 54.4 Av. l 139.2 Max. l 27.7 Min.				
14	NASHUA, N. H.	1,300	2,400	1			20,000							
15	NEW BEDFORD, MASS.	945	All	4	0.90	3.60	70,000		(k) 7,000,000	(k) 95				
16	NEW LONDON, CONN.						15,000	2,219						
17	NEWTON, MASS.	2,294	6,882	5.2			28,400	5,159	k 3,000,000 Av. k 6,000,000 Max. k 1,066,000 Min.	(k) 106 Av. (k) 212 Max. k 38 Min.				
18	PAWTUCKET, R. I.	1,028	1,162	1.7	(i) 1.04	(i) 1.77	33,182	4,484						
19	PLAINFIELD, N. J.	53	53	7			13,250	2,613	l 1,000,000 Av. l 1,400,000 Max. l 900,000 Min.	(l) 75½		(k) 400,000 Max.		
20	SPRINGFIELD, MASS.													
21	WALTHAM, MASS.	360	All Some 3 times			3.60	24,500	3,148						
22	WATERTOWN, MASS.													
23	WESTFIELD, MASS.	317	317			0.35	12,480	1,819	(l) 2,525,000 Millions	By one (m) measurement				
24	WORCESTER, MASS.	2,818	4,652	6.53	0.56	3.32	120,200		(m) 11.67 Av. (m) 20.653 Max. (m) 8.019 Min.	122.0 Av. 171.8 Max. 66.7 Min.		(m) 3,127,000	(m) 23,130	
(i) 1901-1905.		(k) Estimated.		(l) Measured.		(m) Measured and estimated.		(n) Special census.		(o) Including factories.				

(i) 1901-1905.

(k) Estimated.

(l) Measured.

(m) Measured and estimated.

(n) Special census.

(o) Including factories.

LAWRENCE, MASS. Cleaning is usually done by hand.

MARLBORO, MASS. The Healey sewer cleaning machine is used to some extent. Otherwise the cleaning is done by flushing through connections with city water mains.

NASHUA, N. H. Very little cleaning is necessary. Most of it is done by hand or with Felton's sewer cleaning rods.

NEW BEDFORD, MASS. Cleaning is effected by flushing through connections with city water mains. Sometimes the pipes have to be dug up, but this occurs very seldom.

NEW LONDON, CONN. The pipes are cleaned by means of a bucket hauled through them from one manhole to another.

NEWTON, MASS. Cleaning is in charge of an inspector, who has a small force of men under him. He inspects and cleans the sewers as occasion may require, most of the work being done in the winter months. Grease and sludge are removed by brushes with the aid of flushing. Sand and gravel are removed by cylindrical scrapers.

PAWTUCKET, R. I. The sewers are cleaned by flushing through connections with city water mains and by means of a brush drawn through the sewer from one manhole to another.

PLAINFIELD, N. J. The cleaning is effected by means of buckets and root cleaners which are drawn through the sewers on the end of jointed rods or a rope.

SPRINGFIELD, MASS. Cleaning is done by means of scrapers and by flushing through connections with city water mains.

WALTHAM, MASS. The sewers are cleaned by means of scrapers drawn through them on the end of a rod or chain.

WATERTOWN, MASS. The cleaning is done by means of brushes and other ordinary sewer cleaning tools.

WESTFIELD, MASS. The Healey sewer cleaning machine is used.

WORCESTER, MASS. When large sewers need cleaning a sectional track is laid and the silt removed in pails to the manholes, where it is hoisted out and placed in carts. In small sewers scrapers are used which are pulled through them from one manhole to another, by men, horses or a hoisting engine, as circumstances may require. A hoisting engine has proved the most economical when it was practical to use it.

New York City Parks

ON January 1, 1908, New York City possessed 186 parks containing 7,871 acres, of which 79 had an area of less than one acre each. This means one acre of park to each 544 population; also one acre to each 26.3 acres of total area of the city. The assessed valuation of these is \$403,289,000, which is 6.5 per cent. of the total assessed valuation of the city's real estate and special franchises; or \$94.56 per capita of population. Of these parks Bronx Borough contains the largest area; but the large Bronx Park is not entirely responsible for this, as there are 36 parks of less than one acre each and 22 larger ones. Next to the Bronx, Manhattan contains the largest area of parks and in number of parks leads all the boroughs, having 64, 36 of which contain more than one acre. In ratio between acreage and population, however, Manhattan is in the rear, having one acre of park for each 1,542 population, while Brooklyn has one acre for each 1,212, Richmond one for each 1,109, Queens one for each 212 and the Bronx one for each 75. In Manhattan 10.3 per cent. of the total area is in parks, 15.8 per cent. in the Bronx, 2.4 per cent. in Brooklyn, 1.3 per cent. in Queens and 0.19 per cent. in Richmond. The high real estate value of Manhattan's parks is shown by the above figures to be more than \$231,800 per acre, while Brooklyn's parks are valued at only \$32,700, Richmond's at \$23,800, and those of the other boroughs very much lower.

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It is also desired that the facilities furnished by the reference library in this office should be widely known and freely used by those interested in municipal affairs. Visitors will be welcomed and provided with conveniences for search, and inquiries by mail will be promptly dealt with.

JULY 8, 1908.

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Accuracy of Engineers' Estimates

ON another page appears a statement concerning the general accuracy or the reverse of the estimate made by the engineers of New York City of the cost of sewerage, paving and grading work. In each of the boroughs, except Brooklyn, there was evident a failure to estimate as closely on sewer construction as on other work; but the general average of the estimate was reasonably close. Fortunately, the belief is no longer generally entertained that engineers commonly underestimate the cost of proposed work with the intention of deceiving. We believe that few engineers have ever done so; but it is undoubtedly true that in too many cases in the past they have not figured their estimates sufficiently high, generally because of lack of information, poor judgment, or

failure to realize the importance of this branch of their work.

The importance of estimating should be impressed upon the young city engineer in particular. Whatever citizens and councilmen may, or may not, know about the engineering features of his work, they probably understand money matters better than himself; and nothing will more quickly destroy their confidence in him than the discovery that he is unreliable when talking dollars and cents. Mistakes in this will often have more weight than the greatest skill and success in designing and constructing, which only a few can appreciate. The subject of estimating deserves as careful and scientific study by the engineer as any other; a matter which we would bring to the attention of the engineering schools.

Milk Regulation in the Larger Cities

THE requirements with respect to milk in the various cities listed below have recently been studied by Don E. Mowry, the various laws, rules and regulations of health departments, ordinances and reports of these cities having been the source of the information.

Cities.	Test required.				Temp. Fahr.	Bacteria per c. c.	Latest Ordinance passed
	% water	% solids.	% fats.	% cr. fats.			
St. Paul.....	87	13	3.5	20	50	500,000	1907
Milwaukee.....	88	12	3.0	18	50	250,000	1908
Cleveland.....	88	12	3.0	..	55	500,000	1906
Minneapolis....	88	12	3.0	20	50	500,000	1907
Rochester.....	88	12	3.0	..	50	100,000	1907
Boston.....	87	12.5	3.5	15	60	500,000	1908
Omaha.....	88	12	3.0	16	55	150,000	1908
Syracuse.....	88	12	3.0	..	60*	500,000	1908
Indianapolis....	88	12	3.6	16	..	..	1889
Chicago.....	88	12	3.0	..	..	..	1908
Buffalo.....	88	12	3.0	..	..	..	1907
St. Louis.....	88.5	11.5	3.0	12	45	..	1902
San Francisco..	88	12	3.3	..	..	..	1907
Detroit.....	87.5	12.5	3.0	..	50	..	1904
Columbus.....	87.5	12.5	3.5	..	60†	..	1908
Baltimore.....	87.5	12.5	3.5	..	60	..	1908
Kansas City....	88	12	3.0	14	..	..	1908
St. Joseph.....	88	12	3.0	..	..	..	1897
Pittsburg.....	88	12	3.0	..	..	..	1901
New York City..	88	12	3.0	16	55	..	1908
Jersey City.....	88	12	3.0	..	50	..	1905
Richmond.....	..	..	..	..	..	..	1904

*Milk must be stored at 50 F. and must be at 60 F. when sold.
†During May and June.

The above table shows us that of the twenty-two larger cities which furnished the writer with copies of their milk ordinances, more than half have no bacteria test. A license is required of all dealers in these cities; inspection of dairies, depots, and methods of handling milk is provided for also. There are other larger cities which may have good tests, but their reports and ordinances were not at hand. Richmond, Va., is given as an example of Southern methods—no ordinances, for the most part, embracing a so-called test. Cleveland was one of the first cities in the United States to require the bacteria test. St. Paul is the most rigid in the enforcement of its law. New York City fails to maintain the standard in all localities of the city. Rochester does not require the test for all milk sold in the city. The test refers to certified and infant dairy milk, in the main. Score cards, showing the rating of the dairies (provided by the Department of Agriculture, at Washington), are used in many cities, including Chicago, Cleveland, Syracuse, etc.

NEWS OF THE MUNICIPALITIES

Divers Subjects of General Interest and Their Treatment by City Councils and Officials—Streets, Water Works, Lighting and Sanitary Matters—Police and Fire Items—Government and Finance

ROADS AND PAVEMENTS

Will Lay Three Grades of Gravel Roads

Grand Rapids, Mich.—In order to get the greatest possible benefits at the least possible expense, gravel roads will hereafter be divided into three classes, those designed to carry the heaviest traffic for which gravel roads are considered as suitable, those of medium traffic, and the little used roads of the outlying districts. For these streets three grades of gravel will be used, varying in the percentage of stone which they carry and the care with which the material is screened.

Coal Tar for Connecticut State Roads

Hartford, Conn.—Highway Commissioner Macdonald's specifications for applying coal tar to macadam roads are attracting favorable comment and copies have been sent for by the Boston municipal authorities who are about to go to France and speak before the international road congress. According to the Commission, the problem of saving macadam roads from the destructive effect of automobiles is a simple one—it is merely to find a substance for a binder which makes the surface so hard that it cannot be soaked up by rubber tires and is waterproof, so that the action of the elements does no harm to the roads.

Holyoke's Experience with Tar Macadam

Holyoke, Mass.—A year's experience in the use of gas tar produced at the municipal plant has increased the confidence of the members of the Board of Public Works in the value of that material in the construction of macadam roads. The tar from the city gas plant costs only two cents a gallon as compared with six cents or more for the ordinary commercial article. Although not carefully refined and brought to a uniform standard, the material has given good results at a remarkably low cost. As laid in Holyoke, a new macadam road can be laid with two pourings of tar on the surface coats for 80 cents a square yard. This year the tar macadam will be used on more heavily traveled streets than those laid last year. To get the best results experience has taught that the broken stone screenings should be free from all dust and as clean as if washed. If the fine stone on which the tar is poured is dusty the tar does not stick.

Oil for an Automobile Thoroughfare

New York, N. Y.—Riverdale avenue has more automobile traffic than any other thoroughfare in the Bronx, perhaps more than any in New York City. Recently the street was resurfaced by the Department of Street Improvements and already it shows signs of breaking up. Oil will be sprinkled on the road from 230th street north to the city line, with a view of preserving the road and perhaps save the cost of sprinkling. A careful census of automobile traffic recently made showed that upwards of 3,000 machines used the road daily.

Roads Bad, No Rural Mail

Washington, D. C.—In order to secure good roads on the routes over which rural carriers deliver mail, Fourth Assistant Postmaster-General De Graw has issued a regulation that mail will not be delivered on roads not kept in good condition. Some time ago the department issued an order requiring postmasters to report the number of miles of road covered by rural delivery from their offices, and the names of the officials having jurisdiction over each separate section of road. Letters are being sent to these road officials notifying them that rural delivery will not be continued on roads which are not kept in condition to be traveled with facility and safety at all seasons of the year. New York has 1,804 rural routes made up of 1,629 miles of macadam road and 39,352 miles of earth, gravel and sand roads.

Kinds of Paving for Season's Work

Knoxville, Tenn.—Of approximately 100,000 square yards of street paving to be laid in Knoxville this year, over sixty per cent. will be asphalt, over thirty per cent. granitoid concrete, and less than five per cent. each bitulithic and vitrified brick.

Will Have a Sidewalk Inspector

Wilkes-Barre, Pa.—An ordinance is pending in Council creating the office of Sidewalk Inspector at a salary of \$50 per month. According to its terms, the appointment will rest with the Mayor and the duties of the new official will be to inspect all sidewalks in the city, make daily reports to the City Solicitor of any defects found and serve all notices for the laying of new walks.

SEWERAGE AND SANITATION

To Carry on Sewer Construction with Paving

Altoona, Pa.—The introduction of an ordinance providing for a special election for the purpose of getting the assent of the voters to a loan of \$125,000 for street paving has aroused interest in the question of sewer building. It is felt that there are many pavements now laid that should first have had sewers. So it is proposed to ask for popular consent to a sewer loan at the same time. City Engineer Engstrom intends in the near future to design an entire sewer system for the city, or, to be more accurate, to design two systems, one to take care of the house drainage and one to take care of the flood waters. After this is done he will look over the present system and ascertain to what extent the sewers now in use can be utilized in the new plan. Future work will then follow along the lines not reached by the present system.

Advises Boiling Cistern Water and Screening Windows

Charleston, S. C.—Boil all cistern water and screen houses to keep out flies is the advice of Dr. J. M. Green, Health Officer, as a precaution against the spread of typhoid. Notwithstanding the advice of the Health Department, many families continue to drink water from underground cisterns that may become contaminated. An apparently clear case of contagion from flies occurred in a house not screened where artesian water was used. There was a case of typhoid next door where cistern water was used.

Lancaster Sewer Plans Approved

Lancaster, Pa.—Plans for the new Lancaster sewer system have been approved by the State Health Department. The system includes the construction of a dam to prevent the pollution of the water supply. The city will have until January 1 to make preparations. The work will then proceed in sections, so as to avoid a heavy financial burden at any one time.

Unusual Creek Improvement

Syracuse, N. Y.—After nearly eighteen months of preparation in making plans, Onondaga creek is to be improved by the construction of an intercepting sewer. Before the sewer is built the bed of the creek will be lowered about six feet, and, to prevent refilling, it will be lined for the entire distance of two and a third miles with concrete blocks. These blocks, which are twelve inches square and eight inches in thickness, will weigh about one hundred pounds each and will require about 15,000 cubic yards of concrete for their construction. The use of cast concrete blocks was made necessary owing to the difficulty of laying fresh concrete under water, it being planned to lay a gravel bed to serve as a sub-base and foundation for the lining. The lowering of the bed of the creek will cost about \$150,000. When the work is completed the general appearance, as well as the sanitary condition of the creek, will be improved.

Will Build Sewage Plant

Millville, N. J.—Threatened with suit unless they begin immediately to erect a sewage disposal plant, City Council held a special session and decided to confer with engineers and arrange for the building of the plant at the earliest possible date. Before the State Sewerage Commission was legislated out of existence the Council was repeatedly warned that unless a disposal plant was built prosecution would surely follow. No move was made, and when the Commission ceased to exist the Councilmen chuckled until the State Board of Health took the matter in hand and ordered Attorney General McCarter to proceed.

Federal Government May Continue Sanitary Campaign

Oakland, Cal.—The Federal Government has given Oakland unusual assistance in the sanitary campaign that has been carried on for the destruction of rats, and it is prepared to do still more, that the good results accomplished may not be undone. With the exception of San Francisco, Oakland is the only city that ever received financial aid in sanitary work. For eight or nine months the city authorities under the direction of Dr. J. D. Long, of the Federal Public Health Service, have carried on the campaign. Ordinances have been passed calculated to greatly assist in making permanent the good results which have been obtained, if the work is carried on a few months longer. The city has already spent \$65,000 and a plan has now been suggested for an expenditure of \$18,000 extended over a period of six months for the purpose of putting the new ordinance into effect. It has been intimated that if the City Council makes the offer to do this with the proviso that the Federal Government expend a similar amount, it will be favorably considered at Washington.

Sewer Inspector to Get Automobile

Rochester, N. Y.—The Board of Contract and Supply has made provision for an automobile for Armour S. Lloyd, Chief Inspector on sewer work. The automobile will give Inspector Lloyd a chance to visit every job on hand each day. This would be impossible under the present system. The cost of the run-about will be \$450.

State Authorities Suggest a Plan of Sewerage

Lowell, Mass.—The State Board of Health has replied to a request of City Engineer George Bowers for advice as to a suitable sewerage and drainage system for Wigginsville and South Lowell. The Board recommends that before a sewerage system is constructed the streets be raised where necessary to bring them as much as five feet above the river, and that a minimum elevation for buildings be prescribed such as would allow for their proper drainage. House sewage and surface drainage should be separated. The city should acquire control of a brook that leads through the district and use it for surface drainage. Sanitary sewage should be conveyed partly by gravity and partly by pumping to a disposal plant west of the Boston & Maine road.

Data Regarding House Flies Being Collected

Washington, D. C.—Dr. L. O. Howard, entomologist of the United States Agricultural Department, is conducting a series of experiments to determine to what extent the common house fly contributes to the spread of typhoid fever. The work of collecting statistics began June 1. Sheets of fly paper are placed in every section of the city in stores, market stands, outhouses and private houses. These are collected every ten days and new sheets put in their place. The papers are taken to the department, the flies counted and the record filed. The largest number of flies caught in forty-eight hours in any section of the city was 2,600. In the residential part of the city flies are not so numerous on account of cleaner alleys and the absence of stables. The number of bacteria found in a single fly varies from 550 to 6,600,000. Early in the season the number of bacteria is comparatively small, but later very large. Dr. Howard's report on his observations of house flies and their relation to typhoid fever, which has been prevalent in Washington in spite of its supply of pure filtered water, will be made in October.

WATER SUPPLY

Flourishing Water Works

Binghamton, N. Y.—The city water works is in a very flourishing condition financially. Besides having made all extensions and repairs necessary and paying off its entire debt, it now pays fifteen per cent. of its gross receipts into the city's general sinking fund. In addition it has a cash surplus of \$80,000, and it is probable that at least a part of this will be used in the purchase of city bonds about to be issued. Besides the charge made for water rents, a frontage tax of \$1 per year for each 50 feet of pipe is levied.

Reservoir Proposed for a Brooklyn Park

Brooklyn, N. Y.—The officials of the Water Department of Brooklyn and Queens are preparing to revive the old scheme of placing a big reservoir, forty acres in extent, in Forest Park. At present these boroughs have all the water they want—in fact, 1,500,000,000 gallons a year are wasted for want of storage capacity. It is proposed to make a lake that will hold 300,000,000 gallons of water. This would cost \$3,500,000 and take four years to complete. A fifth year would be required to roof the reservoir over and restore the park lands to their original condition.

A Problem for the Water Board

Cohoes, N. Y.—The Board of Water Commissioners must solve this problem before it is definitely decided to install a municipal filtration plant, and that is whether it were more economical to install a plant that will filter 6,000,000 gallons of water per day at the rate of \$10 per million gallons, or to cause meters to be installed generally and thus lessen the consumption of water very materially. If the consumption of water were reduced from the present rate to 75 gallons per day per capita, and that is a liberal allowance, less than 2,000,000 gallons of water per day would be needed, and a comparatively small filtration plant would suffice, and but \$20 per day would be required for filtration purposes rather than \$60 per day. There would apparently be a saving of \$40 per day. Would it therefore be expedient and profitable to utilize water meters in sufficient numbers to cause the consumption of water not to exceed 75 gallons per capita per day?

Corning Completes Its Covered Reservoir

Corning, N. Y.—Water has been turned into the Pine street reservoir which has been undergoing repairs for nearly a year. The old mud bottom was cleaned up, a sound gravel bottom reached and a four-inch concrete bed laid over it. A roof supported by 188 piers was then built over it. The reservoir is 175 feet square, 27 feet at its greatest depth, and holds 3,000,000 gallons of water. This is one of the few concrete reservoirs of its size in the country and makes the Corning water plant one of the finest municipal water systems in the State.

More Water Mains Needed

Portland, Ore.—The city is suffering in the matter of water supply from provisions in the charter which limit the expenditures for water works extensions to the net revenue of the Department, and to the fact that measures voted to relieve the condition have been taken to the courts for decision. Suburban property owners are clamoring for mains while many already supplied with pipes can get water only at certain hours of the day. In the mean time water is allowed to run to waste at the reservoirs because the pipe lines cannot carry it to consumers.

To Guard Source of Water Supply

Portland, Ore.—Portland will assist the government officials in patrolling the Bull Run forest reserve this summer. The city Water Board has decided to employ four forest rangers to watch the reserve in addition to those in the service of the Government, to assist in preventing the spread of fires. Should a fire get well started in the Bull Run water shed the forests would be destroyed and the city's water supply endangered.

STREET LIGHTING AND ELECTRIC POWER

Minneapolis Franchise Vetoed

Minneapolis, Minn.—Mayor J. C. Haynes has vetoed the ordinance granting a franchise to the Minneapolis General Electric Company, which was finally agreed to between a Council committee and the company after a controversy lasting more than a year. In the statement which he gave out the Mayor's attitude is thus expressed:

"I interposed a strong objection, both before your committee and again in a special message to the Council, against the length of term given the company under this ordinance, giving my reasons therefor. To my mind, there is no justification whatever for a thirty-year term in this case, nor in any other where a corporation is seeking a mere renewal of its rights to use our streets and alleys."

There is a chance that the legality of the veto may be contested in the courts on the ground that the veto was not filed within the five days allowed by law, there having been an intervening Sunday.

Franchise to Competing Company Refused

New York, N. Y.—The Public Service Commission in a sweeping declaration has refused permission to the Long Acre Electric Light and Power Company, which proposed to compete for electric light and power service in the city, to issue \$50,000,000 of bonds and \$10,000,000 of capital stock. The company in its application had explained that it had outstanding \$500,000 of bonds and \$50,000 of capital stock. It proposed to retire these bonds, while the new stock was to be non-voting, thereby permitting control to rest in the present stock, which is held by a trustee for the Manhattan Transit Company, the Long Acre's parent corporation. The company is controlled by John C. Sheehan and associates. Its assets were described in its application as being of "problematical value," approximating \$34,000. Of this total, \$18,000 is cash in bank and \$16,000 the appraised value of its electric plant. The Commission states that practically all the advantages claimed by the applicant as the probable results of competition can be secured through the powers of the Commission.

Extensive Street Illumination Being Installed

Seattle, Wash.—By the time the Alaska-Yukon-Pacific Exposition opens next year Seattle will be one of the best lighted cities in the country. Work has been started on the underground conduit system on Third avenue which will convey current to the electric lights to be placed on that street between Pine and Jackson. The plans call for four cluster light poles on each side of the street in each block. First and Second avenues will also be lighted in the same way. The arc lights, which are to be replaced by the incandescent clusters, will be removed to the outlying districts.

Lightning Strikes Niagara Transmission Line

Syracuse, N. Y.—During an electric storm, June 23, the transmission line from Niagara was struck by lightning several times and three insulators burned out. During the repairs on the following day, the attempt was made to supply power from Rochester for a period of thirty minutes, during which the Niagara supply had to be cut off. Rochester was only able to keep up with the demand for fifteen minutes.

Electric Light Shades Prohibited

Washington, D. C.—Some time ago the Commissioners adopted an order against the further placing of shades upon lights in the streets and alleys. Commissioner H. L. West, who was ill in a hospital at the time, has expressed some doubt as to whether a small shade placed across an electric light in front of a residence so as to reduce the annoyance of that light shining into a bedroom has any substantial effect in increasing crime. The order prohibiting shades was taken in view of the large number of assaults upon women a few months ago and the fact that such shades form an obstruction to the street lighting system.

Syracuse Lighting Controversy Settled

Syracuse, N. Y.—The Syracuse Lighting Company has been given the contract for public lighting on terms that had been agreed on by the city but hitherto not accepted by the company. The terms are \$68 a year for arc lights on a basis of 1,400, and pro rata for additional lamps and for current for power and lighting public buildings, six cents per kilowatt hour.

FIRE AND POLICE

Fire Department Now on Full Pay Basis

Bayonne, N. J.—On July 1 the Bayonne Fire Department became a fully-paid one and the men-at-call became like the picturesque Volunteer Department, a thing of memory only. Council appointed seventeen permanent men for the new force.

Strenuous Days for Des Moines Police

Des Moines, Ia.—Strenuous days are ahead for members of the Des Moines Police Department. A recruit school, revolver practice and drills will be the order of things after a new set of patrolmen has been selected following Civil Service examinations. A new manual patterned after the police manual of New York City, which is similar to that of the War Department, will shortly be issued. Thus in a few weeks the force will have been placed on the military basis, which has all along been the foremost idea in the minds of the new administration. The school for recruits is something entirely new in the history of the Department. It will be held in the assembly room of the library building, and all officers not on duty are required to attend. It is now planned to have lectures by City Attorney Robert Brennan, Superintendent Hamery, City Physician Losh and Captain A. G. Miller, the oldest ranking officer in point of service on the force.

Policemen Must Wear Coats

Evansville, Ind.—There will be no shirtwaist policemen in Evansville this year, according to an order issued by Chief Fred H. Breuncke. One of the principal reasons for the order is said to be that a coatless policeman can hardly keep his revolver out of sight and the weapon is considered as indispensable. The men are privileged to buy as light a coat as they can find so long as it corresponds with their uniform.

Mayor Wants Official Report First, Publicity Afterward

Janesville, Wis.—Mayor S. B. Heddles recently had occasion to criticize certain members of the police force because they reported to a prominent divine that gambling was being carried on in the city, that disorderly houses were open and that saloons sold liquor on Sunday. Mayor Heddles said he recognized Chief of Police Appleby as the head of the city's Police Department, and would do so until the courts decided otherwise; that if any member of the Department knew of evils existing it was his duty to report them to his superior and not to outsiders. The Mayor says he proposes to see the laws enforced, and if he finds any officer derelict in his duty an investigation before the trial board will follow.

Ninety Hydrants Reduce Insurance Rates

Jersey City, N. J.—Lewis Sherwood, of the Board of Trade, who is interested in getting the Board of Fire Underwriters to make a reduction in fire insurance rates in Jersey City, called on Mayor H. Otto Wittpenn recently and announced that if the city would place ninety more hydrants in the congested district the insurance rates would be reduced five per cent.

Better Knowledge of City Ordinances for Police

Rochester, N. Y.—The Civil Service Commission, referring to the examination for lieutenant, stated that the examination will be divided into four parts: First, memory tests; second, administrative work of a Police Lieutenant; third, penal code; fourth, city ordinances. Special attention will be given to city ordinances in view of the fact that the recent Captain's examination shows the advisability of a more general study of the city ordinances on the part of the officers of the Department.

High-pressure Service Test in New York

New York, N. Y.—The high-pressure fire service system was tested June 28, under the direction of the Fire Department, and the Department of Water Supply, Gas and Electricity. Fire Chief Edward F. Croker, after observing the deluge of water for half an hour, said that the day of the passing of the steam fire engine is at hand. Water was easily thrown over a twelve-story building. During the test the nozzle pressure varied from 65 pounds when used in a single line to 195 pounds when Siamesed per square inch. Nine thousand feet of fire hose made specially for the purpose was brought into play. Twelve hose lengths capped with two-inch nozzles supported by double tripod holders and twelve inch and a half nozzles held by single pronged supports were used. Speaking of future developments, Chief Croker said the high-pressure hydrants will be equipped with pressure regulating valves. He expects to be able to throw streams to the seventeenth story of any building. Further, it is the intention to have five hundred pounds pressure on the standpipes of all high buildings with outside Siamese connections.

Better Service Promised with Shorter Day

Ogden, Utah.—Chief of Police Browning has asked Council to place the police on an eight-hour working basis. The present arrangement was made some time ago as a measure of economy, and three men were taken off the force. It is now claimed, in favor of the eight-hour arrangement, that the present number of men is all that is necessary, and that its adoption will mean better protection.

St. Paul Favors Auto Apparatus

St. Paul, Minn.—It is likely that horseless equipment will be installed in this city. At the meeting of the Board of Fire Commissioners, the members favored placing the auto equipment in service. This would not at present include the engines, but the lighter apparatus, such as chemicals and hose wagons.

Gasoline Engine Gets First Severe Test

Schenectady, N. Y.—The new gasoline fire engine made by the Westinghouse Company, of Schenectady, had its first trial at a serious fire and acquitted itself with credit. Many members of the Department believe that the new type engine is destined to supplant the steamer entirely. The pumps can be started in ten seconds; there is no slackening up, as when stoking the fire of a steamer; the engine weighs less and has a lower center of gravity than a steamer, consequently can get to a fire quicker; there is no annoying smoke to obscure the atmosphere, and, as it carries a day's supply of gasoline, the use of fuel wagons is unnecessary.

Annual Review of Fire and Police

Syracuse, N. Y.—The annual inspection, parade and review of the Bureau of Police and Fire was held June 24, before Mayor Alan C. Fobes, the city department heads and about fifty invited guests. The horses of the Fire Department received special notice. They are said to be equaled by those of few, if any, departments in the country.

Privileges of Ambulances

Washington, D. C.—Major Richard Sylvester has issued an order calling attention to the provisions of the law regulating the speed of vehicles, with special reference to the vehicles of the Police, Fire, Health and Water Departments and hospital ambulances, which have the right of way over all other vehicles. He quotes the opinion of the Corporation Counsel to the effect that such vehicles are subject to the general speed laws and their drivers may be arrested if they violate them.

Specifications for Fire Horses

Washington, D. C.—For the first time in a number of years the District has gone into the open market to supply horses for the Fire Department. A tender was received for 48 horses at \$275 each under the following specifications: Horses must not be less than five or more than nine years of age; not less than sixteen or more than seventeen hands high; not less than 1,300 or more than 1,500 pounds in weight, and must be well broken, free from bad habits, of solid color and geldings.

GOVERNMENT AND FINANCE

Wants Cost of Renewing Pavement Paid Out of Tax Levy

Boston, Mass.—Mayor George A. Hibbard has sent a message to Council requesting that an appropriation of \$250,000 be made out of the tax levy for street repairs and renewals. He says that the condition of the downtown streets has become a serious menace to the business interests of the community. In the past construction work of this character has generally been met from loans, a method which did not affect the immediate tax rate, but imposed financial burdens upon succeeding generations for improvement of which they enjoy no part.

Vagrancy Ordinance Made Broader

Butte, Mont.—Several new ordinances were introduced recently in Council for the most part codifications of the laws now on the city's statute books on the same subjects. The principal change is in the vagrancy ordinance, which is made broader in its terms, and which will now include a number of suspicious characters, such as confidence men, men who are found to be dealing crookedly at the races, and other characters thought to be undesirable to the city.

More Litigation than Paving in Sight

Columbia, S. C.—The paving of Main street will probably be completed under a new contract, and the difference in cost, if there is any, charged to the alleged delinquent contractor, the Georgia Engineering Company. It seems that the contractor had difficulty in procuring paving brick which would pass the rigid tests required by the city. A former paving Commission granted the contractor some concession in the matter of tests. Exceptions were taken to this action by Council, the Commission resigned and a new one was formed. The new Commission insisted on the letter of the law and took the ground that the former Commission had no authority to permit variations from the specifications. As the matter stands now, the contractor has abandoned the work, according to a certificate filed by the engineer in charge. The Aetna Indemnity Company, surety on the contract, has, after notice, refused to proceed with the work and the Commission has notified the contractor to remove his tools from the line of the work. The contractor takes the ground that the city has violated its contract in not abiding by the concession granted by the former Commission.

A Democratic Town Charter

Eatonton, Ga.—A meeting of citizens was recently held in the County Court Building to discuss a bill passed by the Mayor and City Council for a new city charter. It is proposed that the Mayor, City Counsel, Marshal, Treasurer, Tax Collector, Auditor and three Tax Assessors and a Water Board of three be elected by popular vote. The Board of Education, instead of being a self perpetuating body, is to be elected by Council.

Commission Government and Municipal Insurance

Malden, Mass.—The Committee on Municipal Affairs of the Board of Trade, to whom had been referred the questions of municipal fire insurance and city government by commission, reported that in the opinion of the committee both projects were inexpedient.

New Bedford Secures Lowest Rate

New Bedford, Mass.—The lowest rate of interest secured by any city in the commonwealth for tax notes has been received by New Bedford in the sale of City Treasurer Cook of \$100,000 of temporary tax loan notes to Blake Brothers Company, of Boston, who took the full amount at 3.17 per cent.

Points in Liquor Law Construed

Providence, R. I.—City Solicitor Baker has defined several terms used in the new liquor law. He says a "school house" is any building used for school purposes. A "public traveled way" is any way used by the public for travel, whether the city has accepted it or not. The "last census" taken by the State or the United States refers to the last census next prior in time to the application of the rule.

Favor Printing Tax Levies

Jersey City, N. J.—Former Sinking Fund Commissioner John W. Heck has urged upon Mayor Wittpenn the advisability of printing and distributing in pamphlet form the tax levy of 1908, showing the valuation of each piece of taxable property. Mr. Heck states that Paterson printed such a pamphlet which found ready sale at \$2.50 per copy. Jersey City's schedule could be sold, he believes, at \$5 per copy among real estate men, lawyers, large property owners, building loan associations and others. The publicity given all tax figures would disclose cases of inequality, it is claimed, and would lead to their correction, thus helping the city to equalize assessments.

Vacation Ordinance Adopted

Rochester, N. Y.—An ordinance has been unanimously adopted allowing city officials and city employees vacations of two weeks with pay, the time to be selected with the approval of the heads of departments.

REFUSE COLLECTION AND DISPOSAL

Boston Discusses Garbage Plans

Boston, Mass.—John Ritchie, Jr., of Dorchester, Boston's new Health Commissioner, attended in his official capacity the first of a series of hearings by Mayor Hibbard's special Garbage Commission at City Hall upon the best methods of collecting and disposing of the city's garbage, refuse and ashes. Former Alderman Bangs, Chairman of the Commission, presided at the session. Representatives of many incinerating plant manufacturers, refuse disposal plant operators and representatives of leading Boston hotels, as well as many prominent business men, were present. The principal speakers were E. V. Stebbins and Daniel Sullivan, contractors; A. C. Jones of the American House, John A. Devito of Devito & Co., Shirley Marston and Dr. Eliot of Bedford. The hotel representatives protested against any plan which would compel them to give to the city the garbage from their hotels, as they either sell the garbage at present or send it to their farms.

Garbage Contracts by Districts for Short Terms

Buffalo, N. Y.—The plan of the special committee appointed to consider specifications for the new garbage collection contract, which among other things favors asking bids by districts and for shorter terms than five years, has been adopted by the Board of Aldermen.

Incineration Patents Discussed

Milwaukee, Wis.—According to an opinion given by City Attorney John T. Kelly, the city has the right to use the garbage crematory plans which Dr. Rudolph Hering claims by right of invention of the process. Mr. Kelly says that the process of incineration is not covered by patents and that the plan submitted may be used with safety. The City Attorney says that the deductions made are from questions upon which it is not strictly within the province of the attorney to pass; the answers are to be determined by the engineers who pass upon the plans and specifications themselves, and the kind of structure provided for. However, the answers made are based upon a careful study of the plans and specifications and keeping in mind the requirements of the charter.

Garbage Dumps Closed in Oakland

Oakland, Cal.—The West Oakland garbage dumps, which have been an eyesore and a nuisance for upwards of twenty years, have received their last load and been formally closed. As soon as an arrangement can be made for a spraying machine of sufficient capacity, the dumps will be covered with a solution of lime.

Street Sprinklers Must Not Delay Car Traffic

Vincennes, Ind.—The City Clerk has been ordered to notify Superintendent Weisenberger of the Water Supply Company not to permit street sprinklers to be filled from the water plugs on Main street, as the sprinklers often delay street car traffic.

Peculiar Street Sprinkling Ordinances

Montclair, N. J.—An ordinance is pending in Council providing for the sprinkling of certain highways, which are named, with oil or other liquids to preserve the same and to lay the dust and to assess on lands abutting on the streets the cost of the work. The ordinance derives its authority from a statute passed in 1905, permitting towns to sprinkle streets with water, oil or other liquids to preserve them and lay the dust. In case property owners representing 50 per cent. of the property on these streets protest against the proposed sprinkling, the ordinance, so far as it concerns that street, will not be adopted.

New Plan for Sunday Street Sprinkling

Nashville, Tenn.—A new plan for Sunday street sprinkling was recently put into effect. The old plan was to begin work at 5 A.M., as on weekdays, and continue the work for half a day. Under the new plan proposed by Superintendent S. F. Mosby the wagons are kept out one hour later than usual Saturday afternoon, until 5 P.M. instead of 4. This keeps the dust down pretty well until Sunday morning. Then, instead of beginning at 5 A.M., work is postponed until 10, and from that hour continued until 4 P.M.

PARKS AND OUTDOOR ART

Seventeen-Acre Park Presented to Auburn

Auburn, N. Y.—Mayor C. August Koenig, who advocated in his last annual message the establishment of parks and playgrounds in different parts of the city, has received from Dr. Francis P. Casey an offer to convey to the city a beautiful tract of land located between Grant and North Division streets, consisting of seventeen acres. Included in the tract are several acres of fine woodland, known as Bunker's woods, making it an ideal playground and public park. The only restriction demanded by Dr. Casey is that the property shall always be used for public purposes, and shall be called Casey Park in honor of his father, the late George Casey. Mayor Koenig will proceed at once to lay out a fine ball diamond in the new park.

Plans Beautifying River Front

Louisville, Ky.—Tree planting, sodding and gardening to beautify the river front is a proposition occupying the attention of the Outdoor Art League. The intention of the league is to work with the Commercial Club and transform what has been for years an eyesore to a beautiful front park.

Caterpillars 10 Cents a Quart

Newark, N. J.—Ten cents per quart is the official price for caterpillars in this city. Announcement was made by the Shade Tree Commission that it will pay at this rate for all the caterpillars which are brought in by the school children of the city, who have been organized for a crusade against the worms which are destroying the elm and maple trees of the city. Employees of the Commission are to be stationed at designated points in the various parks to receive the consignments of worms which are brought in. They will measure the various consignments and issue receipts, in turn for which the City Clerk's office will give the required amount of cash.

Monument to Memory of John A. Roebling

Trenton, N. J.—At the highest point in Cadwalader Park, a granite and bronze monument to the memory of John A. Roebling, who designed and built the Brooklyn suspension bridge and organized the firm of John A. Roebling Sons' Company to manufacture suitable cables for the structure, was unveiled by the citizens of Trenton, June 30. Five thousand men paraded through the streets to the park, where over 25,000 people were assembled. Business in the City Hall and other public buildings and throughout the city generally was suspended.

Playgrounds for Wheeling

Wheeling, W. Va.—The Women's Civic Club and the Board of Trade are carrying on a campaign for playgrounds. The club has already arranged for grounds in the newly opened East End Park and hopes to secure sites in other parks.

RAPID TRANSIT**First Electric Car Run in Ardmore**

Ardmore, Okla.—The first street car ever used in Ardmore was run over the completed portion of the Main street tracks, June 20, electric power being supplied by the Ice, Light and Power Company. The Ardmore Traction Company has had its construction delayed by washouts during the recent floods which prevented the delivery of steel. The single car was put in operation in order to hold the franchise which would soon expire.

Worthless Signatures on Referendum Petition

Cleveland, O.—City Clerk Peter Witt has reported to the Committee on Street Railways that the petition circulated for the purpose of requesting a referendum vote on the question of accepting the recent traction ordinances, contains 25,528 names and addresses. On investigation he finds that 14,313 of the signers were qualified electors; 11,022 were not qualified electors; 1,262 were invalid; 193 appear in duplicate. In addition to his own report, the City Clerk encloses a letter from Mayor Tom L. Johnson saying that he has found out by postal card inquiries that 238 names appearing on the list are of citizens who did not sign; 1,634 persons reported that they signed through misrepresentation or misunderstanding, and they wish their signatures revoked; 1,211 post card inquiries were returned by the Post Office, as the persons were unknown at the address given.

To Protect Trolleys at Railroad Crossings

Dayton, O.—Councilman Kearns has introduced an ordinance which would compel all street railways to have inverted troughs on trolley wires over steam railroad crossings.

Arnold Will Appraise New York Traction Companies

New York, N. Y.—William R. Wilcox, Chairman of the Public Service Commission, announced that Bion J. Arnold, the Chicago railroad expert, who has been employed for several months in investigating the conditions of the subway with a view to increasing its carrying capacity, has been retained to direct and supervise the appraisal of the properties of the traction companies of the city. The Commission has ordered this appraisal to learn the grounds for the contention of the receivers of the Metropolitan lines that the old system of transfers cannot be continued without loss. Mr. Arnold will be assisted by a staff of engineering and accounting experts, and orders have already been issued to the companies to prepare inventories of all their properties and statements of the values they place on their franchises. Mr. Arnold will start on his task immediately, but it is expected that it will require at least six months.

Councils Aid Rapid Transit Company

Philadelphia, Pa.—City Councils have given the Rapid Transit Railway the permission it requested to borrow \$5,000,000 for improvements, pledging its franchises and other property as security. Those who were opposed to the measure wished to have the loan allowed on condition of the restoration of certain transfer privileges recently canceled.

Will Reward Employees for Satisfactory Service

Washington, D. C.—Following a new plan to secure further material improvement in the operation of its lines within the District of Columbia, the Capital Traction Company has announced that, beginning July 1, 1908, conductors and motormen in its employ will be divided into three classes and to them will be given substantial monetary rewards—divided in proportion to the number of years each has satisfactorily served the company—at the end of each succeeding year. The three classes will include, respectively, the men who have "served satisfactorily" for two years; those who have "served satisfactorily" for five years, and those who have "served satisfactorily" for ten years or more. At the end of each year, until they have become eligible as members of Class B, the members of Class A will receive a gratuity of \$50. Similarly until they become eligible to Class C, the members of Class B will receive \$75. Members of Class C will be given \$100.

MISCELLANEOUS**Mayor Says Voting Machines Are Not Secret**

Bridgeport, Conn.—Mayor Lee, who vetoed a contract for 33 voting machines, says that he can prove that there are 40 cities which have experienced this dissatisfaction with voting machines. He does not consider that the voting machine is secret. When a man votes straight, there is one click, while there is another for every time he scratches. Moreover, there is a difference in sound between the Republican and Democratic levers. All these sounds are audible to the machine tender, who is separated from the voter only by a drapery.

Ordinance Regulates Auctioneers

Detroit, Mich.—An ordinance has been passed providing for the license of auctioneers, on payment of an annual fee of \$100 each and the filing of a bond in the sum of \$5,000. The penalty for selling at auction without a license is fixed at \$25. A purchaser is given the right to return any article bought under misrepresentation. Substitution of another article makes the auctioneer liable to forfeiture of his license. Misrepresentation as to circumstances or property of the owner of the article makes the auctioneer liable to a fine of \$25 or forfeiture of license. Similar penalties are prescribed for misrepresentation as to articles coming from a bankrupt stock. Auctioneers receiving goods from minors may be fined from \$25 to \$100. "Down hill selling" is defined as auctioneering. Selling on the public streets is prohibited. Attention may not be attached to a sale by noisy devices.

Wants \$10,000 Appropriation for Medical Inspection

Minneapolis, Minn.—After having made a test in two schools for a year, the Municipal Associated Charities has found that medical inspection of school children and their homes produces valuable results, and have accordingly asked Council for an appropriation of \$10,000 to carry on the work in all the schools. A corps of physicians and nurses would be engaged to devote their entire time to the question of bettering the children and the homes from which they come.

Montclair Dog Ordinance

Montclair, N. J.—The following is a copy of the dog ordinance recently adopted by the Town Council and signed by Mayor Henry V. Crawford:

Section 1. No person shall suffer any dog owned or harbored by him to attack or bite any person while upon any street or public place, or while such dog is trespassing upon the property of another.

Section 2. The penalty for the first conviction for breach of Section 1 of this ordinance shall be a fine of five dollars; and upon a second conviction for breach thereof, the dog shall be destroyed and the guilty person shall be subject to a fine of ten dollars.

Section 3. No person shall permit any dog owned or controlled by him to disturb the sleep and rest of the neighborhood by barking or howling between the hours of 9 P.M. and 6 A.M. of the following day.

Section 4. The penalty for the first conviction for breach of Section 3 of this ordinance shall be a fine of five dollars, and the penalty for each subsequent conviction for breach thereof shall be a fine of ten dollars.

Section 5. This ordinance shall take effect immediately.

Public Baths Inspected

Schenectady, N. Y.—The special Common Council committee on public baths recently visited Albany to inspect the public baths of that city. The committee was very favorably impressed with the new bath at Central avenue and Ontario street, which cost \$45,000. It contains a swimming pool 75 by 40 feet, with a depth varying from 3 to 5 1-2 feet. There are also 100 shower baths. On three days in the week a charge of ten cents is made, the admission being free on the other days. Boys and girls may attend in the morning, men and women in the afternoon. It is hoped to establish a modern bath in the old Ferry street pumping station, Schenectady.

LEGAL NEWS

A Summary and Notes of Recent Decisions—Rulings of Municipal Interest

REMOVAL OF TREASURER

Burke vs. Jenkins.—Under the common-law power to remove officers, and under Revised 1905, providing that the corporate powers of towns can be exercised only by the Board of Commissioners, unless otherwise specially provided by law, and under the charter of Bessemer, containing nothing to the contrary, the Board of Commissioners of Bessemer may, after notice and an opportunity to be heard, remove the treasurer for his disregard of the order of the Board forbidding him from paying a claim against the town and for his failure to refund the amount of the claim as ordered by the Board.—Supreme Court of North Carolina.

CONDEMNATION—SUFFICIENCY OF RESOLUTION

City of Asheville vs. Weaver.—A resolution of a Board of Aldermen preliminary to proceedings to condemn land, and notices to landowners, reciting that certain specified tracts of land, without enumerating the exact boundaries of the land, were required by the city for certain purposes, setting out in the disjunctive several purposes enumerated in the statute under which the proceeding was brought in the exact words of the statute, instead of stating the specific purpose for which the land was desired, were sufficient, where the owners were duly notified, and the report of the jury, after viewing the land, recited with entire definiteness the boundaries of the land condemned and the purposes for which it was taken, and assessed the damages.—Supreme Court of North Carolina.

BOND ELECTION—STATUTORY REQUIREMENTS

Cottrell vs. Town of Lenoir.—Private Laws of 1907, providing for the holding of a bond election in the town of Lenoir, requires a registrar to give notice where he may be found for ten days preceding the election and where the books for the registration of voters will be kept open. The town's charter requires registration books to be kept open for twenty days preceding an election. Held, that a bond issue under Chapter 83 is not invalid because the registration books were kept open for twenty days before the election; the requirement respecting the registrar's notice being in addition to the charter requirement. Revisal 1905, limiting town bond issues to 10 per cent. of the assessed valuation of property in the town, does not affect the town of Lenoir's right to issue improvement bonds in the sum of \$100,000, as expressly authorized by Private Laws 1907.—Supreme Court of North Carolina.

DAMAGE FROM STOPPAGE OF BUSINESS—ERROR

Jones vs. City Council of Augusta.—Where suit was brought against the municipal corporation for damages alleged to have arisen from an unlawful stoppage of the plaintiff's business, and where the evidence introduced by the plaintiff (none being introduced by the defendant) failed to show any forcible stoppage of the business of the plaintiff, as alleged, or that he had presented his claim to the municipality, as required by law, and failed to make out a prima facie case authorizing any recovery, a nonsuit should have been granted; but when, instead thereof, the court directed a verdict for a part of the damages sued for, and neither side complained that a nonsuit, rather than a verdict, was proper, or raised such questions in the trial court or in this court, but the plaintiff contended that he was entitled to recover other damages, the judgment will not be reversed at his instance.—Supreme Court of Georgia.

DEFECTIVE STREETS—NEGLIGENCE

Black-Laird Co. vs. Vandiver & Co.—The presence of a red, lighted lantern at the intersection of a street with another does not make it contributory negligence as matter of law for one to drive onto such street.—Supreme Court of Alabama.

DEFECTIVE SIDEWALK—NEGLIGENCE

Kennedy vs. City of Philadelphia.—Where a block of cement is raised by the root of a tree four inches above the level of a sidewalk, a woman who trips over the same cannot recover for injuries, where she knew of the defect and her view was unobstructed, and if she had looked she could have avoided the accident.—Supreme Court of Pennsylvania.

RESTRAINING ENFORCEMENT OF ORDINANCE

Mathew vs. Town of Farmerville et al.—A person, notified by the Marshal of a town that, unless he complied with the provisions of a town ordinance requiring him to perform road duty in the streets of the town or exercise the option reserved to him of paying a fixed sum of money in lieu of the service, he would "take him before the Mayor's court and have him there tried for violation of the ordinance," is not entitled to an injunction from the district court enjoining the bringing of such action in the Mayor's court. He had ample opportunity in defense in the latter court to raise therein all objections against the authority of the town of Farmerville to enact the ordinance, and to raise all issues he thought proper as to the legality and constitutionality of the ordinances, with the right to an immediate appeal to the Supreme Court from a judgment adverse to him. The Mayor's court was the proper court in which to raise primarily and have determined such issues. The party so notified could not by injunction transfer primarily to the district court the issues as to the powers of the town or the constitutionality of the ordinances. There was no occasion for precipitancy in the premises, or for having recourse to equitable relief. When the district court refused to take cognizance of such issues, when presented to it in the manner and under the circumstances they were, for want of jurisdiction, this refusal gave no right to the party seeking an injunction to appeal therefrom. The case as presented to this court does not fall within its appellate jurisdiction.—Supreme Court of Louisiana.

ELECTRIC LIGHT PLANT—TAXATION

Village of Swanton vs. Town of Highgate.—Where an incorporated village was authorized by law to maintain an electric light plant for lighting its streets and public places, such property was devoted to public use within Public Statute 1906, declaring that property so devoted should be exempt from taxation. The Swanton village charter authorized the city to borrow money to put in electric lights and purchase the necessary power for the same, and Section 32 authorized it to light its streets by electricity or otherwise. Section 31 was amended by Acts 1890, authorizing the city to borrow money to defray the expense of putting in electric lights and purchasing and providing the necessary power for the same, or otherwise lighting the village, and Section 32 was amended by Acts 1894 so as to confer authority to light the streets by electricity or otherwise, and to furnish water, electric lights and electric power to parties residing without the corporate limits of the village. Held, that the charter, as amended, conferred neither express nor implied power on the village to furnish its inhabitants with electric lights for private use. A municipal corporation possesses only such powers as are expressly granted or implied because necessary to carry into effect such as are expressly granted. Where an incorporated village had statutory authority to maintain an electric light plant to light its streets, but had no authority to furnish electricity to its inhabitants, and the part of the plant that was devoted to the latter use which was subject to taxation by the town in which the village was located, was so merged in the part devoted to public use, which was exempt from taxation, that it could not be separated, the whole plant was taxable. The part of a village's electric light plant used to furnish electric light to other villages and their inhabitants was not properly devoted to a public use, and was not therefore exempt from taxation.—Supreme Court of Vermont.

POLICE OFFICERS—CHARGES—EVIDENCE

People ex. rel. Trayer vs. Bingham, Police Commissioner.—On the trial of a police officer for misconduct, evidence held insufficient to sustain a finding that he unlawfully represented to a ticket chopper at a subway station that he was a detective sergeant for the purpose of unlawfully procuring transportation, and that he had in his possession a gilt shield resembling those worn by police and detective sergeants, and failed to report possession of and surrender such shield to his superior.—New York Supreme Court, Appellate Division.

SAFE CONDITION OF STREETS

Herndon vs. Salt Lake City.—In an action for personal injuries, caused by a defective street, only a part of which had been prepared for public travel, if it was of sufficient width and reasonably safe within that width to permit plaintiff to pass over it at the time, and he departed from the traveled part without cause, he cannot complain that the street was not worked to a wider extent on the sole ground that others at other times may have required more space in passing over it.—Supreme Court of Utah.

POWER TO INCUR DEBT

Swinson et al. vs. Town of Mt. Olive et al.—The Constitution provides that no municipal corporation shall contract any debt, except for necessary expenses thereof, unless by majority vote of the qualified voters therein. Private Laws 1905 authorized defendant town to build a Town Hall and market place, and issue bonds from time to time for that purpose to a certain sum. Section 52 provided for the payment of such bonds and interest thereon by levying a particular tax, not to be less than 5 nor more than 20 cents on \$100, and not less than 15 nor more than 60 cents on each poll for each \$50,000 of the bonds, the taxes to be accounted for and kept separate from other town taxes, and applied exclusively to the purpose stated, and Section 28 provided that the annual tax on property enumerated shall not exceed 50 cents on the \$100 valuation, and poll taxes shall not exceed \$1.50. Held, that Section 28 only applied to taxes for ordinary purposes, and did not apply to indebtedness for special purposes enumerated in Section 49, and there was no limitation upon town taxes for necessary purposes, except as imposed by statute, so that the Legislature could properly authorize the building of a Town Hall, etc., without the vote of the people.—Supreme Court of North Carolina.

DEFECTIVE SIDEWALK—EVIDENCE

Dwards vs. City of Cedar Rapids.—Plaintiff, in an action for injury from a loose plank projecting above the level of the sidewalk, may not show the condition, a year after the accident, of the stringers under the sidewalk. The remark of the court on objection to the character of the cross-examination of a physician, "I think the doctor has given a very fair and unbiased statement of the condition he found this patient in," is prejudicial error. Testimony of the engineer at the electric light station that a large arc light was burning at the time and place of the alleged accident from a defective sidewalk, he testifying from a record kept by him made at the time, showing when the light went on and off, is admissible in an action for the accident claimed to have occurred when the place was unlighted. The record kept by the engineer at the electric light station, made at the time of the matters noted, showing when the light went on and off, and from which he testified, is admissible in an action for injury from a sidewalk claimed to have been unlighted at the time. To recover of a city for injury from a defective sidewalk it is necessary that it knew, or should have known, of the defect so long before the accident that in the exercise of ordinary and reasonable care it might have made repairs before the accident.—Supreme Court of Iowa.

REFERENDUM—ENFORCEMENT

Ex Parte Wagner.—The initiative and referendum provisions in the Constitution are not in conflict with the Constitution of the United States guaranteeing to every State a republican form of government. Said provisions as contained therein are not self-executing, but are made effective by an act of the Legislature approved April 16, 1908. Until said provisions were made effective by legislation, a petition for a referendum filed with the chief executive officer of a municipality of the first class was of no effect. An ordinance having been passed and published, and thereafter a petition for referendum filed with the Mayor of Kingfisher, and afterwards said relator being convicted in said municipal court for an alleged violation after the filing of said petition, he is not entitled to be discharged from said conviction.—Supreme Court of Oklahoma.

SELECTION OF PAVING MATERIAL

Taylor et al. vs. Schroeder et al.—To justify the selection of any article not patented for paving streets, it must appear that there are no other materials of the same general character which can be brought into competition, and a city ordinance and a contract made thereunder requiring the use in street paving of certain brick made by only one company were invalid; it appearing that there were other bricks on the market which complied with the test established by the board of public works for paving bricks, and which, though differing slightly from the brick selected, were of the same general character and practically equal thereto.—Kansas City Court of Appeals, Missouri.

COMPROMISE OF CLAIMS—POWERS

Farnsworth vs. Town of Wilbur.—While a Town Council may legally compromise doubtful or disputed claims while acting in good faith and with ordinary discretion, they cannot under the guise of a compromise surrender a valuable claim where there is no longer room for a substantial controversy.—Supreme Court of Washington.

CITY SURVEYOR—COMPENSATION

People ex rel. Crane vs. Ahearn, Borough President.—Revised Ordinances of 1880 of the Mayor, Aldermen and Commonalty of the City of New York, in force on April 21, 1903, under the direct provisions of Laws 1901, provides for the appointment of an indefinite number of City Surveyors to assist the Commissioner of Public Works, etc., in laying out and regulating streets and roads. Section 114 provides that they shall take an oath before they take office. Relator was appointed a City Surveyor April 7, 1903, and took the oath April 27. The Code of Ordinances of the City of New York was adopted November 8, 1906. Section 276, relating to Surveyors, authorizes the President of any borough to employ a City Surveyor in laying out streets where needed. Section 277 provides that the City Surveyor so employed shall receive certain specified compensation for making necessary surveys and furnishing necessary copies of damage maps in street-opening proceedings. Section 278 provides that he shall receive payment for all services on completion and acceptance of the work. On December 4, 1906, the above ordinance being then in force, relator was assigned to a job of work. December 10, 1907, the Aldermen amended Section 277, increasing the compensation of the Surveyor. Held that, though relator as a City Surveyor was perhaps not an officer, strictly speaking, yet, inasmuch as he was appointed and required to take an oath of office and became by virtue thereof eligible to certain employment in the nature of public service for which he was entitled to receive compensation at specified rates for services performed, fixed by the local law and assessed upon the property, the amount of his compensation depended upon the law at the time his services were rendered, and not upon the law at the time of his appointment; and hence relator was entitled to the additional compensation for the extra copies.—New York Supreme Court, Appellate Division.

SIDEWALK CONSTRUCTION—PROCEDURE

City of Owensboro vs. Hope.—Statutes 1903 authorize the common council of cities to pass ordinances to require the improvements of streets and alleys subject to the mode and manner therein designated, requiring the work to be done at the cost of the abutting owner, and imposes a lien on the abutting property therefor. Section 3450 makes it the duty of the Mayor to contract for the doing of the work, and Section 3451 provides that it shall be done under the supervision of the mayor and city council, and the cost apportioned against the owners of property liable to pay the same. Section 3452 declares that after the completion of the work and apportionment of the cost, the liability of the property owners shall be fixed and the lien attach. Held, that a city, being authorized by Section 3290 to pave and improve its streets, acquired such power only within the limitations prescribed by the Constitution and Sections 3449-3452, and therefore had no power to require by ordinance that abutting property owners should themselves construct sidewalks in front of their property.—Court of Appeals of Kentucky.

STATE RAILWAYS—CONTRACT OBLIGATION

City of St. Louis, Appellant, vs. United Railways Company and St. Louis Transit Company.—An inviolable contract between a municipality and street railway companies which will prevent the exaction of a license tax under an acknowledged power of the municipality is not created by ordinances passed in the exercise of authority to grant the use of the streets, under which the companies have agreed to pay certain sums for the use of such streets for a given period, where such ordinances do not expressly relinquish the right to exact license fees or taxes.

BUILDING ORDINANCE—STABLE

Coon vs. Board of Public Works of City and County of San Francisco et al.—The business of running a livery stable is not a nuisance *per se*, for whether a stable is a nuisance depends upon the manner in which it is conducted. An ordinance requiring the consent of owners of property within 200 feet of a proposed stable for more than six horses as a prerequisite to the issuance of a permit is unreasonable and void as vesting in private individuals the arbitrary power to determine whether the owner of real property may use it in pursuit of a lawful occupation.—Court of Appeals, First District, California.

STREET OBSTRUCTION—AUTHORITY

Alabama Western Railroad Company vs. State ex rel. Attorney General.—The State may maintain a bill to abate an obstruction of a city street, constituting a public nuisance, and the city alone has not the exclusive right to maintain such a bill.—Supreme Court of Alabama.

NEWS OF THE SOCIETIES

Association of City Attorneys and City Clerks of Illinois.—The third annual convention of the association, which met in Springfield, June 26, elected the following officers: Charles F. Clyne, City Attorney, Aurora, President; M. T. Rudgren, City Clerk, Rock Island, Vice-President; J. H. Soldwedel, City Clerk, Peoria, Secretary; John B. Chick, City Clerk, Leroy, Treasurer. The following Executive Committee was named: Chairman, Roy M. Seeley, City Attorney, Springfield; J. O. Jones, City Attorney, Delavan; E. J. Raymond, City Clerk, Aurora; W. G. Smith, City Clerk, Beardstown, and G. A. Shallberg, City Attorney, Moline. Peoria was unanimously selected as the next meeting place, the time to be determined upon later. Along the line of legislation the following special committee was appointed: E. J. Raymond, City Clerk, Aurora; W. G. Smith, City Clerk, Beardstown, and J. B. Chick, City Clerk, Leroy. This committee will visit the various cities of the State for the purpose of studying a uniform system of accounting between cities in order that statements may be prepared and compared showing exactly the conduct of affairs in different municipalities and they will report their findings to the Executive Committee, which will prepare and submit to the forty-sixth General Assembly for its consideration any legislation which it may be decided upon to ask along the above lines. Owing to numerous unforeseen circumstances the prearranged program was only partly carried out. But three papers were presented to the convention, one in person by Charles F. Clyne, City Attorney of Aurora, on "Firemen's Pension Fund Act of 1907," which was ably presented and proved interesting to the members. The paper on "Municipal Accounting," prepared by C. W. Powers, Chief Statistician, Census Department, Washington, D. C., was read by E. J. Raymond, City Clerk of Aurora. This paper was prepared under Government supervision and was an able and exhaustive treatment of the subject. G. A. Shallberg, City Attorney of Moline, presented an excellent paper on "Special Assessment Proceedings Before Boards of Local Improvements."

Engineers' Society of Milwaukee, Wis.—At the annual meeting June 17 the following officers were elected: President, E. P. Worden; Vice-President, T. S. Watson; Secretary, W. F. Martin; Treasurer, M. A. Beck; Directors for three years, L. L. Tatum, H. Weickel, Paul Johnson. The paper of the evening was by Mr. S. L. G. Knox, Vice-President and Chief Engineer of the Bucyrus Company, South Milwaukee.

American Society of Civil Engineers.—The society opened its fortieth annual convention June 23 in the Senate chamber at Denver, Col., with nearly 500 of its 4,600 members present. Addresses of welcome were made by Governor Henry A. Buchtel and Mayor Robert W. Speer and a response was given by President Charles MacDonald of New York. President MacDonald also read his annual address. Among the subjects considered were irrigation, road building and mining.

International Union of Granite Pavers.—Delegates to the union meeting in Cincinnati, coming from all parts of the country, bring news of universal prosperity in their line. There is more granite paving being done at this time than

at any other time in the history of the country, and the quarries cannot get enough men to make the blocks. The reconstruction of street car tracks in Chicago and other cities is one of the causes of the scarcity of men. The officers of the union are: Patrick Dillon, President, New York; John E. Pritchard, Secretary, New York; Joseph Taylor, Treasurer, Chicago.

Mayors' League of New Jersey.—Mayor Andrew F. McBride, of Paterson, as temporary chairman of the League of Mayors, has appointed a committee on rules, regulations and by-laws. This action was taken after the decision had been arrived at to effect a permanent organization on the lines suggested by the committee on plan and scope. The meeting June 30 was held in the City Hall, Jersey City, and was attended by the Mayors and heads of financial departments of nearly every city of the first and second class in the State. The Mayors discussed civic matters in general and talked over plans for the advancement of the interests of cities in the State. Methods of government were considered and other topics of general interest to municipalities in the two classes named. There was some talk of admitting to membership the Mayors of smaller cities, but the final outcome of this discussion was to hold to present conditions for the time being. The committee on rules named by Dr. McBride consists of Mayor H. Otto Wittmann of Jersey City; Patrick H. Ryan, President of the Newark Common Council, and James C. Connolly, City Attorney of Elizabeth. This committee will report back at the next meeting, to be held July 28.

Municipal League of Indiana.—The eighteenth annual convention of the League was held in the Coliseum at Laporte, June 23-25. J. T. McNary, of Logansport, called the League to order. Mayor Darrow delivered an address of welcome. President J. T. McNary responded in the absence of Mayor George R. Durgan, of Lafayette, who arrived later. "What the Indiana Municipal League Can Accomplish," was the subject of an address by Chief of Police James McWeeney, of South Bend. The interchange of new ideas in municipal affairs he considered the principal benefit, as well as cooperation in many matters of detail. The subject of "Local Option" occupied a good deal of attention. B. F. Deahl, former Mayor of Goshen, opened the discussion. Mayor Lawrence Becker, of Hammond, opposed prohibition; declared against the blanket remonstrance laws; favored city and township local option but not county local option, and said he considered the saloon as a necessary evil. Chief McWeeney also argued that the saloon was necessary, but he urged that the disreputable saloon be stamped out with a law that would give the County Commissioners power to revoke instantly the license of a saloonkeeper whose moral unfitness should become apparent, and to make provisions for the care of the children of drunkards, as well as provide means for care and punishment of drunkards who neglected their children. Former Councilman James, of Indianapolis, spoke in favor of temperance and said he would help restrain the liquor traffic. The report of the Legislative Committee was adopted, calling upon the Legislature to pass a law permitting cities to change the general fund for street lighting and hydrants in several particulars,

and putting municipal plants under civil service rule.

Mayor Becker, of Hammond, was instructed to secure the passage of a law by the Legislature, permitting city officials to succeed themselves, the officials claiming it was only fair to the citizens to give them a chance of availing themselves for the second time of efficient representatives. Among the social features of the meeting were a trolley ride to Michigan City and a sail in a steamer on Lake Michigan.

Indianapolis, Gary, Richmond and Lafayette were candidates for the next annual meeting place of the convention, Lafayette winning out. Officers were re-elected:

President, Councilman J. T. McNary, Logansport; Vice-Presidents, Mayor Geo. R. Durgan, Lafayette, and Mayor John W. Murphy, Wabash; Secretary, Walter Blake, City Clerk of Laporte, and Treasurer, Loring W. Mellette, former City Attorney of Elwood. Chairmen of sections were also selected, the same constituting the executive committee; Executive session, Mayor Lawrence Becker, Hammond; legislative, J. R. Colgate, Madison; legal, W. D. Cunningham, Lafayette; police, James McWeeney, South Bend; clerical, George F. Hartwell; engineering, F. R. Charles; board of public works, W. O. O'Neal, Richmond.

Calendar of Meetings

- July 24-25.
American Society of Heating and Ventilating Engineers.—Summer meeting, Niagara Falls, N. Y.—W. M. Mackay, Secretary, P. O. Box 1818, New York City.
- August 10-12.
International Acetylene Association.—Eleventh Annual Meeting, Chicago, Ill.—A. Cressy Morrison, Secretary.
- August 11-14.
American Association of Park Superintendents.—Annual meeting Minneapolis, Minn.—F. L. Mulford, Secretary, Harrisburg, Pa.
- August 25-28.
International Association of Fire Engineers.—Annual convention, Columbus, O.—James McFall, Secretary, Roanoke, Va.
- September 8-12.
Playground Association of America.—Second annual congress, New York City.
- September 21-October 12.
National Association for the Study and Prevention of Tuberculosis.—International Congress, Washington, D. C.—Dr. Henry Barton Jacobs, Secretary, Baltimore, Md.—Dr. Joseph Walsh, Philadelphia, Pa. Special Secretary of the Committee on the International Congress.
- September 23-25.
New England Water Works Association.—Annual convention, Atlantic City, N. J.—Willard Kent, Secretary, Narragansett Pier, R. I.
- September 8-10 or 23-25.
League of American Municipalities.—Twelfth annual convention, Omaha, Neb.—John MacVicar, Secretary, Des Moines, Ia.
- September.
New Jersey State Firemen's Association.—Annual meeting, Atlantic City, N. J.—William Exall, Secretary, 11 Howard street, Newark, N. J.
- October 11.
International Roads Congress.—First convention, Paris, France.—President Lettier, l'Inspecteur General des Ponts et Chaussees.
- October 12-17.
American Street and Interurban Railway Association.—Twenty-seventh annual meeting, Atlantic City, N. J.
- October 20-23.
American Society of Municipal Improvements.—Fifteenth annual convention, Hotel Dennis, Atlantic City, N. J.—A. Prescott Folwell, Secretary, 239 West Thirty-ninth street, New York City.
- November 17-20.
National Municipal League.—Annual meeting, Pittsburgh, Pa.—Clinton Rogers Woodruff, Secretary, 705 North American Building, Philadelphia, Pa.
- November 17-20.
American Civic Association.—Annual Meeting, Pittsburgh, Pa.—Clinton Rogers Woodruff, Secretary, 705 North American Building, Philadelphia, Pa.
- December 4-5.
New Jersey State Sanitary Association.—Annual Meeting, Lakewood, N. J.—John B. Smith, Chairman, New Brunswick, N. J.

PERSONALS

ADAM, STEPHEN JOSEPH, Chief of the Fire Department of Budapest, Hungary, has been fighting fires on the East Side of New York City for over a month past, as a member of Hook and Ladder Company No. 18; he is accompanied by his wife and son and is commissioned by the Budapest authorities to make a thorough investigation of the system of fighting flames in the big cities of the United States.

AIKEN, W. A., M. Am. Soc. C. E., for the past eight years General Inspector of Material on the staff of the Chief Engineer of the Board of Rapid Transit Railroad Commissioners of New York City, has become associated with the Henry S. Spackman Engineering Co., 42 North Sixteenth street, Philadelphia, Pa.

BONNET, WILLIAM, who was a member of the City Council of Newark, N. J., 1881-2, has been named by Mayor Jacob Haussling, as Police Commissioner of the city, to fill the vacancy caused by the death of William R. Bennett.

CARLILE, C. B., and W. E. Scott have been authorized by the city of Pueblo, Col., to audit the books of the City Auditor and City Clerk, covering the four years beginning April 15, 1905.

EGAN, PATRICK, Chief of Police of Providence, R. I., was tendered a complimentary dinner by Thomas A. Doyle Conclave, No. 704, Improved Order of Heptasophs, in Elks Hall recently, when he was lauded by Mayor P. J. McCarthy, Secretary of State Charles P. Bennett and other city, county and State officials, as well as his subordinates.

GREEN, ALLEN J., has been elected City Engineer of Huntsville, Ala.

GETTMAN, CHARLES W., has been elected Town Engineer of West Seneca, N. Y., succeeding Mr. Daniel P. Murphy, resigned.

HIBBARD, GEORGE A., Mayor of Boston, Mass., has gone to Provincetown, Mass., for a five-weeks' vacation; he is accompanied by his stenographer, Harry Fogarty, and will not return to the city, except on business of importance during the heated term.

HODGES, HARRY F., Lieut.-Col. Corps of Engineers, U. S. Army, General Purchasing Agent of the Isthmian Canal Commission until appointed a member of the Commission recently to succeed Jackson Smith, resigned, sails from New York for the Canal Zone July 8; he will serve as principal assistant to Col. Goethals, Chairman and Chief Engineer of the Commission, and will also have charge of the work of designing locks.

MCCLELLAN, GEORGE B., Mayor of New York City, has been summoned to appear before Justice Housell of New Brunswick, N. J., on July 13, to answer to a charge of exceeding the speed limit recently, when constables timed the car; the chauffeur refused to stop, but the number of the car was secured and it was found that the Mayor owned the car.

SUPPLEE, J. E., Mayor of the town of Potomac, Va., embracing Del Ray and St. Elmo, has been reelected over Henry J. Kremer, while Town Clerk George W. Zachery defeated J. E. Marcher and Treasurer W. P. Varney had no opposition.

WING, FRANK L., Mayor of Tampa, Fla., has named James N. Holmes as Chief of Sanitation, Dr. W. P. Lawrence as City Physician, W. R. Rowland, City Attorney and E. J. Holmes, Plumbing Inspector.

WOODWARD, S. T., Chief of Police of Tampa, Fla., under the administration of Frank C. Bowyer, several years ago, has been named again for the position by Mayor Wing, to succeed George Walker.

TRADE NOTES

Cast-iron Pipe.—Chicago: The total volume of business accumulating is not enough to reduce stocks in foundries' yards, which have been steadily accumulating. The aggregate of small routine orders holds fairly even. Quotations: 4-inch, \$27; 6 to 12-inch, \$26; 16-inch and up, \$25. San Francisco: Numerous inquiries for small lots for delivery during the next three months are reported. Market is firm at the following prices: 6 to 12 inch, \$36; 4-inch, \$37. Birmingham: Prices firm. Quotations: 4 to 6-inch, \$23; 8 to 12-inch, \$22; over 12-inch, average \$21. New York: Prices firm. Carload lots, \$24.50 to \$25, in carload lots of 6-inch at tidewater.

Lead.—The lead market is easier. The American Smelting and Refining Co.'s price was firmly held at 4.50c., but there is a lack of interest on the part of consumers. The Metal Exchange quoted the market at 4.42½@4.47½c., July 2. The St. Louis market was easy and dull at 4.30@4.35c. In London Spanish was quoted easy at £12 7s. 6d. and English at £12 15s. Exports from New York were 250 tons.

Offices Opened.—The Cameron Septic Tank Company is opening branches in New York and San Francisco. The New York office, in charge of Mr. A. C. Hepp, as resident engineer, will be located at room 603, 143 Liberty street. The San Francisco office will be in charge of Mr. C. W. Fee, as resident engineer, but the location has not yet been determined. The main office will continue as at present in the Monadnock Block, Chicago.

Water Company Improvements.—Within a short time the Paxtang Consolidated Water Company of Pennsylvania, which will supply Hummerstown, Middletown, Penbrook, Eastmere and a dozen or more other localities with filtered water, will start work on the construction of the 1,200,000 gallon reservoir at Chambers Hill. This reservoir will be 350 feet above the filter plant and 300 feet above Harrisburg. After the water has been purified it will be sent direct through the pipes to the large reservoir. In order then that no impurities might penetrate the water it will be shielded from the dust and air by a covering, the entire reservoir being roofed over with concrete. The altitude of the reservoir will insure heavy water pressure in all the surrounding towns which will be connected by the new water system. An equalizing reservoir, or standpipe, for purposes of emergency, will be built at Penbrook. This second reservoir will keep the pressure in the pipe lines the same in times of fires or other emergencies. The construction of the Hummelstown filter plant is being carried on by George S. Baton & Company, of Pittsburg. Charles S. Schaup is the engineer in charge. The pipe line work is being done under the supervision of Samuel Johnson, of Millersburg.

Street Cleaner.—The Kindling Machinery Company, Milwaukee, Wis., has sold ten kindling sewer street washing machines to the city of New York. The sale follows a trial of one machine on the smooth pavements of the city, which gave promising results. The order is given for the purpose of making more extensive experiments.

Venezuela Asphalt.—Reports received in New York from Venezuela state that the New York and Bermudez Company, a subsidiary of the General Asphalt

Company, is planning to offer to President Castro \$2,500,000 for the return of its asphalt property seized by the Venezuelan Government in 1904. Under the proposed arrangement it was said that the company is to pay an instalment of \$250,000 a year for ten years and also pay to the Government a share of the profits during the administration of President Castro. The company is ready to send two representatives to Caracas on this mission. It is believed that this action has been decided upon because the company has lost all hope of settling its claims against the Venezuelan Government by arbitration.

PATENT CLAIMS

891,252. Ditching, Digging and Loading Machine. James U. Hare, Anoka, Minn. Serial No. 388,558.

In a device of the kind described, a digging and hoisting fork comprising the handle portion with tines formed at the lower ends thereof, the two parallel crossbars secured across the lower end of the handle portion, intermediate tines secured to the front side of the lower crossbar and to the rear side of the upper crossbar, all of said tines being made of metal and bent forwardly at an acute angle below said bars.

891,345. Concrete-Mixer. Samuel Knisley. Phillipsburg, Kan. Serial No. 419,700.

A concrete-mixing apparatus comprising a supporting frame, an angular receptacle journaled therein, flanges surrounding said receptacle and having an angular perimeter which is in contact with the ground, stop-blocks on the outside of the receptacle, and a slide-bar carried by the frame and adapted to engage the stop-block.

891,417. Bridge Construction. Howard Friend, Lexington, Okla. Serial No. 390,665.

In a suspension bridge of the character described, the combination with the end and the intermediate towers and the cross-beams carried thereon; of suspension cables supported from the end towers, said cables having separated divisions of strands that pass under the crossbeams on the intermediate towers, and yielding connections that join the separate divisions of strands with the main or tower posts, thereby providing for the contraction and expansion of the suspension cables.

891,569. Road-Drag. Harry J. See, Deedsville, Ind. Serial No. 388,416.

A road drag, comprising a front sill and a rear sill, a pair of braces connecting said sills, one of said braces having a greater length than the other to dispose the front sill at an acute angle to rear sill, a hitching strap mounted upon the upper face of each brace and having its forward end looped and projecting beyond the front sill, a swinging ring secured to each of said looped ends, a longitudinally-disposed blade carried by the front sill upon its outer face, and a cover secured to the upper face.

891,742. System of Sewage Disposal. Fred P. Smith, Kansas City, Kan., assignor of one-half to Edward C. Lewis, Chicago, Ill., and John H. Kitchen, Kansas City, Mo., Copartners, doing business as Lewis & Kitchen, Kansas City, Mo., a firm. Serial No. 234,082.

In combination with a catchbasin adapted and designed to receive sewage; a septic tank system connected therewith and receiving the sewage under normal conditions, and a bypass or overflow extending from the catchbasin, said bypass or overflow coming into operation to relieve the tank system from flooding under abnormal inflow of sewage or rain water.

891,796. Steel Derrick and Excavating-Machine. Charles Cooper, Garden City, Kan. Serial No. 400,661.

In a device of class described, a main beam, a base therefor, having an internal reinforcing plate adapted to be inserted from the side to directly support said beam, a pair of vertically adjustable extensible booms pivotally mounted on said main beam and having hoisting means at the extremities thereof, said hoisting means having rope connection with an equalizer mounted on the main beam.

891,756. Concrete-Mixer. George P. White, Wallace, Idaho. Serial No. 335,019.

A concrete mixer comprising a revoluble drum, a support for said drum, means within said drum for diffusing the material upon rotation of the drum, and a discharge chute extending into said drum and pivotally connected at its opposite ends to the support so as to permit it to be swung either into position to receive material carried upward by the drum or into an inoperative position within the drum at one side thereof.

THE WEEK'S CONTRACT NEWS

Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards

To be of value this matter must be printed in the number immediately following its receipt, which makes it impossible for us to verify it all. Our sources of information are believed to be reliable, but we can not guarantee the correctness of all items. Parties in charge of proposed work are requested to send us information concerning it as early as possible; also corrections of any errors discovered.

BIDS ASKED FOR

STATE	CITY	RECEIVED UNTIL	NATURE OF WORK	ADDRESS INQUIRIES TO
Street Improvements				
Missouri	Kansas City	July 9, 11 A.M.	Concrete paving in alley; art. stone walk, 12 sts.	E. A. Harper, City Engineer.
Pennsylvania	Danville	July 9, noon	Filling portion of Penna. canal, 19,500 cu. yds in hosp. grounds	Dr. H. B. Meredith, Supt. St. Hosp.
Ohio	Jefferson	July 9, 1 P.M.	Grading and macadamizing 2.07 miles road Conneaut tp.	J. C. Rogers, Chm. Bd. Co. Com'rs.
Ohio	Poland tp.	July 9, 2 P.M.	Grading and macadamizing road 13,362 ft. long	W. J. Morris, Township Clerk.
Washington	Bellingham	July 9, 2:30 P.M.	Clearing, grubbing, grading, ½ mile County road No. 429	J. A. Miller, County Clerk.
New York	New York	July 9, 3 P.M.	Furnishing 70,000 asphalt blocks on Riverside Drive	Henry Smith, Pres. Park Bd.
Pennsylvania	Verona	July 9, 4 P.M.	Vit. brick paving, grading, etc., two alleys	Jas. C. Wonders, State Hwy. Com.
Iowa	Dubuque	July 9, 8 P.M.	Brick paving Sixth St., from Locust to Main St.	Ed. Linehan, City Recorder.
Illinois	Princeton	July 9	Brick paving, curbing, grading, draining, Main St.	H. G. Paddock, Secy. Bd. Loc. Imp.
Indiana	No. Manchester	July 9	Paving about one mile on 5 sts. with sheet asphalt.	A. G. Ebbinghaus, Town Clerk.
Ohio	Coshocton	July 9	Piking 2 miles of road with gravel, sand or limestone.	Com'rs. of Road District.
Pennsylvania	Mercer	July 9	Constructing 11,250 ft. of road in Hickory tp.	J. W. Hunter, Harsbg. St. Hwy. Com.
Pennsylvania	Tunkhannock	July 9	Constructing State road in Clinton township	J. W. Hunter, Harsbg. St. Hwy. Com.
West Virginia	Clarksville	July 10, noon	Paving seven streets; also brick sidewalks, etc.	Will H. Cole, City Clerk.
Ohio	Cincinnati	July 10, noon	Road work in County	Fred Dreih, County Clerk.
Tennessee	Rogersville	July 10, 1 P.M.	Grading 80 to 92 miles of road; macadamizing, 20 miles	F. G. Phillips, Civil Eng'r.
Indiana	Rushville	July 10	Bldg. macadamized road bet. city and White River bridge	A. L. Stewart, County Engineer
Ohio	Columbus	July 10	Improving about 45 streets	E. W. Hirsch, Secy. Bd. Pub. Serv.
Ohio	Steubenville	July 10	Additional work on Yorkville road in Warren tp.	County Commissioners.
Indiana	Crawfordsville	July 11, 10 A.M.	Constructing Kleiser gravel road in Boone Township	Montgomery County Com'rs.
Ohio	Chevoit	July 11, noon	Macadamizing, curb., grading, etc., Apple Gate road	Charles Craig, Village Clerk
Dist. of Col'bia	Washington	July 11, noon	Paving 8 sts. with asphalt block; 17 with sheet asphalt	Jay J. Morrow, Eng'r Com'r.
Colorado	Telluride	July 11, noon	Bldg. and repairing 4½ m. road to Norwood Hill, San Mig. Co.	T. W. Jaycox, Denver, State Eng'r.
Texas	San Antonio	July 11, noon	Brick, asphalt or bitu. paving, 21,000 sq. yds, inc. space of st. car tracks and 7,000 lin. ft. curbing	Fred Fries, City Clerk.
Ohio	Woodsfield	July 11	Brick paving, grading, sewerage, curbing, Church and Wash. Sts.	Geo. P. Dorr, Village Clerk.
Texas	San Antonio	July 11	Paving 21,000 sq. yds. inc. material; 7,000 ft. curb.	Frederick Fries, City Clerk.
Wisconsin	Oshkosh	July 13, noon	Grading, macadamizing, comb. curb and gutter, Vine St.	W. A. Marden, Chm. Bd. Pub. Wks.
Alabama	Mobile	July 13, noon	Wood block paving, 34,712 sq. yds. and 2,966 ft. granite curb, grading, etc.; vit. brick, 2,902 sq. yds. and 2,582 ft. granite curb, etc.; cement curb, 11,744 lin. ft., inc. grading, etc.	Wright Smith, Ch. Eng'r. B. P. W. C. E. Troy, Village Clerk.
Ohio	Lochland	July 13, noon	Grading, macadamizing, etc. 3 sts. and aves.	Street Committee.
Illinois	Lamotte	July 13	Constructing 12,000 sq. ft. of cement sidewalk	D. M. Haverly, County Clerk.
Nebraska	Omaha	July 14, noon	Paving 2½ miles on 8 roads	F. Skene, State Engr., Albany.
New York	Sonyea	July 14, 2:30 P.M.	Bldg. complete piece of roadway, 1-5 miles long	J. C. Edsall, Town Engineer.
Wyoming	Lander	July 14, 8 P.M.	Grading and surfacing 4,928 ft. Main St., req. 10,082 cu. yds.	City Commissioners.
Ohio	Chardon	July 14	Macadamizing about 2 miles of township road	The Mayor.
Iowa	Red Oak	July 14	Constructing 9 blocks brick paving; 30,000 ft. curb.	John B. Ashe, Auditor, Harris Co.
Texas	Houston	July 14	Bldg. 5 miles additional pavement on W. Montg. Co. road	A. B. Lea, County Eng'r.
Ohio	Cleveland	July 15, 11 A.M.	Grading, draining and improving N. Miles Ave. and Cannon road	Lawrence Gresser, Pres. Bo. Queens.
New York	L. I. City, N. Y.	July 15, 11 A.M.	Furn. 200,000 second-hand granite blocks; also granite block and macadam paving, etc.	Frease & Sperling, Wilkinsburg Eng.
Ohio	Zanesville	July 15, noon	Brick paving, grading, etc., sev. miles road Falls tp.	H. T. Payne, County Auditor.
Indiana	Newport	July 15	Bldg. gravel rd., 5,871 ft. long, Hett tp.; two in Highland tp., 12,744 and 11,359 ft. long	J. W. Hunter, St. Hwy. Com., Harsbg.
Pennsylvania	Greensburg	July 15	Constructing 3,358 ft. brick road in Ligonier Boro.	J. W. Hunter, St. Hwy. Com., Harsbg.
Pennsylvania	Somerset	July 15	Bldg. 3,044 ft. brick rd. and 1,352 ft. rd., Point. Boro.	Geo. H. Ayers, Boro. Engineer.
Pennsylvania	Phillipsburg	July 15	Brick paving, 3,500 sq. yds., Pine and Laurel Sts.	A. B. Lea, County Surveyor.
Ohio	Cincinnati	July 16	Improving North Miles Ave.	Fred Dreih, Clk. Co. Com'rs.
Ohio	Cincinnati	July 17, noon	Improvement of Varner and other roads	D. M. Haverly, County Clerk.
Nebraska	Omaha	July 18, noon	Paving sundry County roads	Jas. M. Norris, County Controller.
Pennsylvania	Wilkes-Barre	July 20, 2 P.M.	Bldg. macadam road, 2 sections, 3.38 and 1.9 miles	R. H. Craig, City Engineer.
Florida	Palatka	July 21	Constructing 8,500 sq. yds. granolithic sidewalk	T. W. Jaycox, Denver, State Eng'r.
Colorado	La Jura	July 22, noon	Bldg. and repairing 5½ miles wagon road at Sandford	Ross McLaughlin, Village Clerk.
Ohio	Carrollton	July 29, noon	Improving W. Main St., inc. 6,206.33 sq. yds. vit. block paving; 3,538 lin. ft. straight, 104 ft. circular curb and 200 ft. headers; 250 ft., 15 and 440 ft., 10-in drain, catch basins	
Water Supply				
Kansas	Neodosha	July 9	Pumping machinery, c-i. pipe, etc., for new water works	M. D. Earl & Co., Chicago, Ill., Engr's.
Connecticut	New Britain	July 10, noon	Laying about 8 miles of 24-in. c-i. pipe	Frank H. Oldershaw, City Eng'r.
Ohio	Springfield	July 10, noon	Furn. 189 tons 6-in.; 263 tons 12-in.; 70 tons 16-in. c-i. pipe; also 8 tons pig lead, f. o. b. cars Springfield	Wm. H. Mahoney, Clk. Bd. Pub. Serv.
Indiana	Spencer	July 10, noon	Exc. and laying c-i. pipe, specials, hydrants, etc., for water system, inc. 20,000 lin. ft. exc., 250 tons c-i. pipe	Spencer Light, Power, Heat & W. Co.
West Virginia	Clarksburg	July 10, noon	Furn. and laying 4,800 ft., 12-in. c. i. water pipes, complete	Will H. Cole, City Clerk.
Pennsylvania	Reading	July 10, 7:30 P.M.	Constructing Bernhart filters; E. L. Nuebling, Supt.	Edward Elbert, Pres. Bd. W. Com'rs.
Massachusetts	Manchester	July 10, 8 P.M.	Furn. 443 tons 16-in. c. i. pipe, Class E., N. E. W. W. Ass'n., 523 tons, 14-in.; 12 tons specials, f.o.b., Manchester	F. J. Merrill, Chm. Water Com'rs.
Washington	Seattle	July 11	Second unit, Cedar River water supply system, inc., sub-div. No. 1 main pipe line, \$1,250,000; Beacon Hill reservoir, \$200,000; Green Lake reservoir, \$80,000	R. H. Thomson, City Engineer.
Ohio	Newark	July 11	Laying pipe and for hydrants; cost, \$30,000	Riggs & Sherman Co., Toledo, Eng.
Dist. of Col'bia	Washington	July 13, 10:30 A.M.	Railroad water tanks and fittings, Isth. Canal Com.	Gen. Parch, Officer, Isth. Canal Com.
Ohio	Cincinnati	July 13, noon	Sale of boilers, pumping engines, deep well pumps, boiler feed pumps, engines, tools, etc., at 6 pumping stations	John J. Wenner, Clk. B. P. S.
New York	Brooklyn	July 15, 2 P.M.	Furn. and erect. pumping engine at Mt. Prospect Sta., Bklyn.	John H. O'Brien, Com'r W. S. G. & E.
Michigan	Traverse City	July 15, 2 P.M.	Raising Upper Dam from 22 to 41 ft. head	W. S. Cook, Gen. Mgr. Lt. and Pr. Co.
Iowa	Ames	July 15, 8 P.M.	Ext'd water supply system, inc. 14,000 ft. 6 and 4-in. ci. pipe	A. B. Maxwell, City Clerk.
South Carolina	Bennettsville	July 15	Constructing \$60,000 water works and sewerage system	J. M. Bandy, Maxton, N. C., Eng'r.
New York	Fort Terry	July 18	Furn and installing 50 h. p. boiler in pumping station	Constructing Quartermaster.
Minnesota	Lindstrom	July 20, noon	Constructing 80-ft. steel tower for water tank	L. J. Andrew, Village Recorder.
Iowa	Templeton	July 20, noon	Constructing water system; extra foun., June 6	M. J. Daeges, Town Clerk.
Ohio	Oxford	July 20, noon	Lab'r and ma. for const'ng. w. sup. and fire lines at Miami Univ.	Board of Trustees, Miami Univ.
British Col'bia	Victoria	July 20	Furn. and erecting hori.-cross-compound pumping engine; steel tank and tower, and concrete and steel water tower	F. W. Northcott, Purchasing Agt.
Oklahoma	Okmulgee	July 20	Furn. hydrants and valves; 60 h. p. gas engine, dir. con. to 35 H. W., 3 phase, 60-cycle alternator or auto. high speed engine, triplex pump, drv. car. to electric motor, etc.	W. S. Bell, Mayor.

Water Supply—Continued.

New York.....	New York.....	July 23, 11 A.M.....	Bldg. portion Catskill aqueduct, inc. 6½ miles cut and cover aqueduct, 17x17½ ft.; 3,470 ft. 17x13½ ft. tunnel, etc.	J. Waldo Smith, Ch. Eng'r Bd. W. S. H. B. Rice, Mayor.
Texas.....	Houston.....	July 27, 3 P.M.....	Erecting 15,000,000-gal. pumping engine with plans, etc.	
California.....	Los Angeles.....	July 27.....	Bldg. Jawbone div. Los Angeles aqueduct, cap. 400 second ft., inc. 43,000 lin. ft. lined tunnel; 60,000 ft. lined conduit; 340,000 cu. yds. excavation, etc.	H. B. Ferris, Bd. Pub. Wks. The Mayor.
Illinois.....	New Boston.....	July 29.....	Pumping plant and accessories.	

Sewerage

Indiana.....	North Manchester.....	July 9.....	Bldg. district sanitary sewer, main about ¼ mile long	A. C. Ebbinghaus, Town Clerk.
Alabama.....	Andalusia.....	July 10, noon.....	Constructing sewer system	Z. D. Stredstill, City Clerk.
Alabama.....	Mobile.....	July 13, noon.....	Furn. and laying 256 ft. 2½ x 3 ft. rein. concrete culvert; 10,600 ft., 10 to 36-in. pipe sewers; 15,000 ft., 6-in. house connections, catch basins, manholes, inlets, etc.	Stewart Brooks, Pres. Bd. Pub. Wks. John J. Wenner, Clk. Bd. Pub. Serv.
Ohio.....	Cincinnati.....	July 13, noon.....	Constructing storm water relief sewer	Fremont McLees, City Clerk.
Indiana.....	Wabash.....	July 13, 6 P.M.....	Constructing storm water sewer system	Robt. G. Gill, Greensburg Eng'r.
Pennsylvania.....	Derry.....	July 13, 8 P.M.....	Constructing 43,900 ft. of sewers; also purification plant.	Geo. F. Merley, Town Clerk.
Indiana.....	South Peru.....	July 14, 7:30 P.M.....	Bldg. 8½ ft. reinforced concrete sewer, 1,578 ft. long.	H. L. McCall, Chair. Bd. Pub. Wks.
South Carolina.....	Bennettsville.....	July 15.....	Constructing \$60,000 sewerage system and water works	J. B. F. Breed, Ch. Eng'r. Sewer Com'n.
Kentucky.....	Louisville.....	July 17, noon.....	Constructing Section B of new sewer system.	F. W. Shraeder, City Clerk.
Ohio.....	New Bremen.....	July 18, noon.....	Furn. vit. sewer pipe, manholes, flush tanks, etc.	O'Neill Engineer Eng. Co., Dallas, Tex.
Oklahoma.....	Okmulgee.....	July 20.....	Constructing sewer and waterworks	J. F. Riddy, City Clerk
North Carolina.....	Shelby.....	July 22.....	Imp. Onandaga Crk., 2½ miles long, inc. 76,000 cu. yds. excavation and 14,800 cu. yds. concrete blocks and mass concrete.	Henry J. Hamlin, Secy. Sewer Bd.
New York.....	Syracuse.....	July 23, 4 P.M.....	Constructing 8½ ft. sewer; cost, \$60,000.	A. J. Callow, Secy. Bd. Pub. Serv. City Clerk.
Ohio.....	Cleveland.....	July 23.....	Constructing sewerage system.	S. B. Heddles, Mayor.
Kansas.....	Pratt.....	July 24, noon.....	Furn. material and labor for work in 8 sewer. dist., and main outlet sewer, inc. 39,797 ft., 8 to 48-inch sewer.	Bascan Sykes, City Engineer.
Wisconsin.....	Janesville.....	July 24, 2 P.M.....	Constructing sanitary sewer system for Fifth Ward.	
Virginia.....	Portsmouth.....	July 28, 8 P.M.....		

Public Buildings

Indiana.....	Kokomo.....	July 9, 2 P.M.....	Bldg. brick and stone orphan's home for County	Wm. L. Benson, County Auditor.
Ohio.....	Springfield.....	July 9, 3 P.M.....	Constructing extension to U. S. Post Office.	James Knox Taylor, Wash., D. C.
Wisconsin.....	Racine.....	July 9, 5 P.M.....	Erecting field house at Horlick Park	Guilbert & Funston, Architects.
Pennsylvania.....	Easton.....	July 9.....	Enlarging fire station.	John Mutchler, City Clerk.
New York.....	Canton.....	July 10, 2 P.M.....	Erecting, heating, ventilating, wiring, etc., high school bldg.	E. F. Lansing, Watertown Arch.
South Dakota.....	Aberdeen.....	July 10.....	Raising old hosp. Bldg. to level of new and bldg. foundation.	John C. Daley, County Auditor.
Dist. of Col'bia.....	Washington.....	July 11, noon.....	Modifications in heating plant at new Police Court.	Jay J. Morrow, Eng'r. Com'r.
Ohio.....	Springfield.....	July 13, noon.....	Moving 2-story school bldg. and bldg. masonry foundation.	Clerk, Board of Education.
Minnesota.....	Brainerd.....	July 13, 2 P.M.....	Putting new roof on County Court House	J. A. Erickson, Ch. Co. Com'rs.
Illinois.....	Chicago.....	July 14, 11 A.M.....	Wrecking, exc. and caissons for new City Hall.	Holabird & Roche, Monadn. Bldg. Architects.
Maryland.....	Dorsey.....	July 14, noon.....	Erecting new school for Anne Arundel County	Howard Shipley, Architect.
Ohio.....	Hamilton.....	July 14, noon.....	Bldg. brick school at Lindenwald; Fred G. Mueller, Arch.	John A. Keller, Clk. Bd. Educ.
Pennsylvania.....	Sharon.....	July 14, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Ohio.....	Findlay.....	July 15, 1 P.M.....	Constructing school in Blanchard township.	Geo. W. Brown, Clk. Bldg. Tp. Bd. Ed.
Georgia.....	Valdosta.....	July 15, 3 P.M.....	Constructing, complete, Federal Building	James Knox Taylor, Wash., D. C.
Iowa.....	Des Moines.....	July 15.....	Erecting school in Elm Grove Dist., Bloomfield tp.	Hallett Ranson, Utica Bldg. Arch.
Maine.....	Augusta.....	July 16, 3 P.M.....	Bldg. complete extension to Post Office.	James Knox Taylor, Wash., D. C.
New Jersey.....	Bloomfield.....	July 16.....	Enlarging and improving Berkeley school house.	Chas. G. Jones, 280 Bwy. N. Y. Arch.
Ohio.....	Cleveland.....	July 17, noon.....	Erecting school bldg. on Columbia ave., N. E.	Charles Orr, Director of Schools.
Ohio.....	Lisbon.....	July 17.....	Remodeling and improving the County infirmary.	County Commissioners.
Ohio.....	Wyoming.....	July 18, noon.....	Erecting Fire Dept. bldg; Garber & Woodward, Cinc., Arch.	Josiah Kirby, Mayor.
Ohio.....	Youngstown.....	July 20, noon.....	Bldg. fireproof 10-room, stone, brick and concrete school.	Thos. J. Helridge, Pres. Bd. Educ.
Ohio.....	Dover Center.....	July 20, noon.....	Erecting school, H. O. Wurmser & E. F. Elliott, Lorain, Archs.	S. A. Phinney, Clk. Bd. Educ.
Ohio.....	Jefferson.....	July 20, 1 P.M.....	Bldg. 2-story and base brick addition to Court House	J. L. Wilson, Ashtabula, Arch.
Wisconsin.....	Rhineland.....	July 22, 2 P.M.....	Constructing 3-story Court House; cost, \$100,000; stone, fireproof construction, 120x95 ft. A. Taylor, Chm. Co. Com'rs.	C. H. Tegen, Manitowoc Arch.
Maine.....	Auburn.....	July 20, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Virginia.....	Richmond.....	July 21, 11 A.M.....	Erecting addition to State Library Building	Geo. P. Mundy, Sec'y Gov's Office.
Michigan.....	Coldwater.....	July 21, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Tennessee.....	Paris.....	July 22, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
New Jersey.....	Hoboken.....	July 22.....	Constructing City Hall and ambulance house	James H. Londrigan, City Clerk
Illinois.....	Alton.....	July 23, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Illinois.....	Belleville.....	July 24, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Montana.....	Butte.....	July 27, 3 P.M.....	Extension, remodeling, etc., U. S. Post Office.	James Knox Taylor, Wash., D. C.
Arizona.....	Florence.....	July 30, noon.....	Bldg. Terry, prison; also cells and other work for prison.	Thornton Fitzhugh, Phoenix, Ar.
Maine.....	Portland.....	July 30, 3 P.M.....	Constructing, complete, U. S. Court House.	James Knox Taylor, Wash., D. C.
Wisconsin.....	Milwaukee.....	July 31, 3 P.M.....	Plans, etc., for detention house and juvenile court bldg.	F. O. Phelps, County Clerk.
Texas.....	Houston.....	August 1, noon.....	Bldg. \$500,000 Court House, Lang & Witchell, Dallas, Archs.	Harris County Commissioners.
Minnesota.....	St. Paul.....	August 1.....	Competitive plans for Mechanical Arts High School, 62 rooms; Architects all over country invited to submit plans.	Com. on Schools, School Bd.
Kansas.....	Atchison.....	August 3, noon.....	Bldg. ad. to Co. Hosp. on Co. farm; lining jail with rein. conc.	Edward Iverson, County Clerk.
Indiana.....	Rochester.....	August 3, 2 P.M.....	Building annex to County Asylum	Geo. W. DuBois, County Auditor.
Connecticut.....	Hartford.....	August 3.....	Constructing new engine house.	Chas. E. Parker, Chy. Bldg. Com.
California.....	San Francisco.....	August 10, 3 P.M.....	Reconstruction of and repairs to Federal bldg.	James Knox Taylor, Wash., D. C.
Wisconsin.....	Green Bay.....	September 23, noon.....	Erecting Court House; sep. bids for plumbing, heat, etc.	C. E. Bell, N.W. bldg., Minpls., Minn.

Bridges

Oklahoma.....	Durant.....	July 9, 9 A.M.....	Bldg. suspension bridge over Island bayou, near city.	J. M. Abbott, Chm. Co. Com'rs.
Indiana.....	Anderson.....	July 9, 11 A.M.....	Constructing several bridges.	W. T. Richards, County Auditor.
Indiana.....	Elkhart.....	July 9, 2:30 P.M.....	New floor and repairs to N. Main St. bridge	D. O. Batchelor, County Auditor.
Indiana.....	Connersville.....	July 10, 10 A.M.....	Bldg. 15-ft. concrete arch bridge with 45-ft. rdwy. over White Water River, and constructing fills.	J. L. Kennedy, County Auditor.
Ohio.....	Lorain.....	July 10, 1 P.M.....	Bldg. concrete arch bridge of two 75-ft. spans, 18-ft. rdwy.	James Bebout, County Auditor.
Ohio.....	Logan.....	July 10, 1 P.M.....	Bldg. super. and abutments of concrete arch bridge, Falls tp.	James Bebout, County Surveyor.
Michigan.....	Mason.....	July 14, 10 A.M.....	Furn. and erecting steel bridge, 101 ft. long, 16 ft. wide in clear, with concrete-steel floor, over Grand River.	Edward T. Elliott, Highway Com'r.
Ohio.....	Middletown.....	July 14, 10 A.M.....	Bldg. hoist bridge over M. and E. Canal; also floors and walks.	J. E. Brate, Co. Aud., Hamilton.
Idaho.....	Lewiston.....	July 14, 10 A.M.....	Constructing bridge over Lawyers' Canyon.	W. L. Gifford, Clk. Co. Com'rs.
Ohio.....	Bryan.....	July 14, 11 A.M.....	Bldg. several sub. & superstructures for bridges.	R. H. Weaver, County Auditor.
Ohio.....	Mansfield.....	July 14, noon.....	Bldg. Gattion Rocks bridge; superstructure and abutments.	C. L. Bushey, County Auditor.
North Dakota.....	Fargo.....	July 14, noon.....	Constructing and repair of eleven county bridges.	Arthur G. Lewis, County Auditor.
Wyoming.....	Lander.....	July 14, 8 P.M.....	Bldg. concrete arch at Main St.; also 2 concrete culverts.	J. C. Edsall, Town Engineer.
Ohio.....	Portsmouth.....	July 15.....	Bldg. 3 bridges; two 26 ft. long, one 22 ft., 16 and 12 ft. rdways.	County Auditor.
Indiana.....	Delphi.....	July 16, noon.....	Bldg. approach to iron bridge in Deer Creek tp., inc. grading, etc.	M. G. Hann, County Auditor.
Pennsylvania.....	Philipsburg.....	July 16.....	Bldg. concrete or protected steel bridge bet. 2 Cos.	J. H. Wetzel, Bellefonte, Eng'r.
Ohio.....	Dayton.....	July 18, noon.....	Bldg. concrete-steel bridge over Gt. Miami River.	F. J. Cellarius, City Engineer.
New Brunswick.....	Frederickton.....	July 20.....	Bldg. 3 metal super. spans, hwy. br., from revised work.	John Morrissey, Chm. Dept. Pb. Wks.
Ohio.....	Portsmouth.....	July 22.....	Bldg. 3 iron or steel bridges, with concrete floor; 52, 45 and 43 ft. long; one 16 and two 12 ft. roadways.	County Auditor.
Oklahoma.....	Hobart.....	August 3.....	Extension of north fork bridge, east of Granite.	County Commissioners.

Lighting and Electricity

Kentucky.....	Frankfort.....	July 10.....	Constructing \$60,000 power house for State Capitol.	Governor Wilson.
New York.....	New York.....	July 13, 11 A.M.....	Additions, etc., electric bell and light systems, 24 schools.	C. B. J. Snyder, Supt. School Bldgs.
Illinois.....	North Chicago.....	July 15, noon.....	Heat, and elec. distr. mains and concrete tunnel, Train Sta.	Commandant, Naval Train. Station.
Michigan.....	Traverse City.....	July 15, 2 P.M.....	Raising Upper Dam fr. 22 to 41 ft. head; Bdmn. Riv. L.P. Co.	W. S. Cook, Gen. Mgr.
New York.....	New York.....	July 15, 2 P.M.....	Furn. placing and main, 161 gas regulators, July 15 to Dec. 31.	John H. O'Brien, Com'r W.S., G.&E.
Ohio.....	Oak Harbor.....	July 15.....	Lighting sts., alleys, etc., of village for 10 yrs., from Dec. 1.	Village Clerk.
Dist. of Col'bia.....	Washington.....	July 15.....	Furn. 20 miles, type 44, intern. single-conductor cable, spec. 419; 30 miles, type 45, deep sea cable, sing. cond., spec. 420; 5 miles, type 46, light double armor, single conductor cable, spec. 421.	Chief Signal Officer, U. S. Army.

Lighting and Electricity—Continued

Ontario.....	Toronto.....	July 15.....	Bldg. steel trans. towers, line cable and system from Niagara Falls to Toronto and St. Thomas for Hydro.-Elec. Power Com.	Adam Beck, Chm. Hy.-Elec. Pow. Co.
Alberta.....	Medicine Hat....	July 18.....	Drilling a 6 and 8-in. gas well.....	W. B. Morrison, City Engineer.
Washington....	Seattle.....	July 18.....	Constructing cluster light system on First Ave.; cost, \$61,000.	R. H. Thomson, City Engineer.
Kentucky.....	Richmond.....	July 20.....	Bldg. steam, light and heat plant Ky. East Norm. Sch; \$25,000.	Anderson & Frankel, Lexington, Eng.
Pennsylvania....	Wilkes-Barre....	July 23, noon.....	Lighting certain sts. with electric arc lights for 3, 5 and 7-yr. terms, from July 1, 1909; \$5,000 check with bid.....	R. H. Richards, Chm. St. Ltg. Com.
Montana.....	Townsend.....	August 1.....	Bldg. 600 h.p. electric plant on Deep Creek for lighting city and operating mines; cost, \$85,000.	C. Hebrinch, Helena, Eng'r
Pennsylvania....	Pottstown.....	August 1.....	Lighting sts. by gas or electricity, 3 or 5 yrs.; now using 96 incan. lights, 32 cp. each; 80 arc lights, 1,200 cp. each.....	C. H. Breidenbach, Chm. Prop. Com.
Ontario.....	Hamilton.....	August 3.....	Bldg. plant to light city with elec. supplied by Hy. Elec. Power Com.; 700 arc lamps and complete equipment, cost, \$200,000	City of Hamilton.
New York.....	Saratoga.....	August 7, 3:30 P.M.	Furn. gas, arc, incandescent or other lights for streets and public buildings for 4 year term.....	Philip S. Wakeley, Village Clerk.
Wisconsin.....	Green Bay.....	September 23.....	Gas and electric fixtures, etc., new Co. Court House.....	Elmer S. Hall, Clk., Brown Co.

Miscellaneous

Tennessee.....	Memphis.....	July 9, noon.....	Furnishing 4,000 ft., 2½-in rubber fire hose.....	James H. Malone, Mayor.
Pennsylvania....	Rankin.....	July 9, 2 P.M.....	Bldg. 10-ton garbage crematory.....	C. Koelman, Boro Sec'y.
Indiana.....	Connersville....	July 10.....	Filling nr. White Water bridge, \$15,000, inc. 34,250 yds. earth fill; 2,733 yds. gravel, 9,840 sq. ft., sodding.....	A. L. Steuart, Rushville Eng'r.
Michigan.....	Grand Haven....	July 14, 3 P.M.....	Repairing South Pier.....	Col. M. B. Adams, Eng'r Corps, U.S.A.
New Jersey.....	Hoboken.....	July 14.....	Furnishing 2,000 ft., 2½-in fire hose.....	D. A. Haggerty, Clk. Bd. Fire Com'r.
Iowa.....	Des Moines.....	July 15, 11 A.M.....	Improving channels at Raccoon and Des Moines Rivers.....	A. J. Mathis, Mayor.
New York.....	L. I. City, N. Y.	July 15, 11 A.M.....	Granite block and macadam paving on concrete, grading, etc., also furn. 200,000 second-hand granite blocks.....	Lawrence Gresser, Pres. Boro Queens.
New York.....	New York.....	July 16, 2 P.M.....	Electrical equipment and laying sewers, water pipes and tracks, and grading and paving the Plaza of Blkws. Id. br. Bklyn.	J. W. Stevenson, Com'r Bridges.
Delaware.....	Wilmington.....	July 18, 11 A.M.....	Bldg. concrete sea and retaining wall, Maurice River Range.....	Light House Engineer.
New York.....	New York.....	July 23, noon.....	Final disposition of all ashes, street sweepings, etc.....	Foster, Crowell, Com'r St. Cleaning.

STREET IMPROVEMENTS

Huntsville, Ala.—An association of citizens was recently formed to promote the proposed national boulevard from Detroit to New Orleans. Charles M. Thatcher was present at the meeting. Officers were elected as follows: Ben P. Hunt, president; James R. Stevens, Mrs. Humes, Mrs. Ben Matthews and Mrs. W. T. Hutchens, vice-presidents; R. E. Pettus, secretary; C. B. Carlisle, Joseph J. Bradley and Mrs. Ben P. Hunt, assistant secretaries. Quite a great deal of interest in the national boulevard has been aroused here by Mr. Thatcher. His next stop will be at Birmingham.

A general improvement ordinance for curbing, guttering, leveling, grading and repairing all of the principal streets has been passed on its first reading by Council; the ordinance provides for gutters three feet wide of vitrified brick, repairs of all streets and paving with vitrified brick between the tracks and 18 inches on each side on all streets in which any railway is operated; ordinances were also adopted providing for the paving of Clinton and Holmes streets, between Gallatin and Washington streets, with vitrified brick.

Hayward, Cal.—Special elections are to be called within the next sixty days to vote on \$40,000 bonds for street and sewer improvements and \$1,500 for additional apparatus for the Fire Department.

Los Angeles, Cal.—City Engineer Hamlin has plans under way for macadamizing of Twenty-eighth street, from Figueroa to Hoover, and Jefferson street, from Main street to Central avenue.

Richmond, Cal.—Residents of two blocks in Twenty-first avenue, between Point Lobos and B streets, are agitating the question of having that thoroughfare paved.

Riverside, Cal.—Plans will shortly be under way for paving Third street, between Lemon and Vine streets.

Stockton, Cal.—Fred A. Eckstrom can be addressed for further information regarding good roads for this place.

Denver, Col.—The Board of Construction recently held a meeting to consider the Platte Canon boulevard.—Address Mayor Speer.

Pueblo, Col.—A resolution, presented by Alderman Martel, providing that the City Engineer be authorized to advertise the proposed construction, reconstruction, repair and renewal of sidewalks, which work had been decided upon by Council, was passed.—William Peach, City Engineer.

Meriden, Conn.—Prominent citizens recently met with the Mayor to discuss the matter of permanent pavement for the streets in the city; a proposition is being considered to secure \$200,000 in bonds for this work.

Wilmington, Del.—City Councilman Cassidy is interested in new boulevard on West Fourth street.

Key West, Fla.—Council has instructed the City Attorney to draw up an ordinance directing the Board of Public Works to proceed with the grading and paving of Fleming street.

Pensacola, Fla.—The Superintendent of Streets recommends the purchase of a petrole-litic rolling tamper, so that sand-oil roads may be built under the supervision of the City Engineer.

St. Augustine, Fla.—Property owners along some of the principal streets have petitioned

Council for paving the thoroughfares with vitrified brick.

Decatur, Ill.—Council has passed an ordinance to pave Boyd street with block brick, laid on a 4-inch concrete foundation; bids will be received about the middle of the month.—A. B. Alexander, City Engineer.

Elgin, Ill.—Council has decided to pave Dundee avenue.

Joliet, Ill.—The Board of Local Improvements has been petitioned to pave Laurel street, from Exchange to Washington street, with brick.

Naperville, Ill.—Engineer W. S. Shields, 140 Dearborn street, Chicago, is preparing a report for macadam work required in sundry streets for the Department of Local Improvements.—E. Kroehler, Mayor.

Princeton, Ill.—This city is preparing to pave certain streets.—H. G. Paddock, Moline, Engineer.

Waukegan, Ill.—Ordinances have passed Council authorizing the construction of cement sidewalks on portions of Douglas avenue, Washington street, Sheridan road and McKinley avenue; bids will be advertised for at once for paving Madison street, east of the Northwestern Railroad tracks.—H. Tracker, City Clerk.

Bennett, Ia.—Estimates are being prepared for paving and curbing certain streets.

Davenport, Ia.—The plan to pave Ninth avenue, from Twentieth to Twenty-fifth street, with asphalt will be submitted to the property owners.

Peru, Ind.—Bids will be received the latter part of the month for grading and graveling and constructing cement sidewalks and curbs and gutters on about one mile of new streets.—William O'Hara, City Clerk.

Sioux City, Ia.—Paving on Pierce street, between Eighteenth and Twenty-fifth streets, was ordered by Council, despite the fact that an effort was made to postpone the matter; some of the property owners who protested vigorously against the use of brick block, the material first suggested for the paving, concluded that was what they wanted when the Council switched to asphalt. Before paving is begun, a storm water sewer will be laid to drain the district. Property owners have been notified by Clerk Smith to connect their homes with gas and water mains.

A resolution for a sanitary sewer on Isabella street, between Fourth and Fifth streets, was passed by Council.

A resolution for combined gutter and curbing on Nineteenth, between Pierce and Jones streets was read and action deferred to July 14.

Paducah, Ky.—An ordinance has been passed providing for submission to the voters of proposition to issue \$25,000 bonds for street and sidewalk improvement.—James P. Smith, Mayor.

Rockville, Md.—According to the estimate of the State Highways Commission, it will cost more than \$40,000 to build the proposed pike from Kensington to Chevy Chase, a distance of over three miles.

Towson, Md.—The question of good roads in this town and vicinity is being discussed.

Boston, Mass.—The Highways Commission has made the following allotments from the State appropriation: Pittsfield, \$6,709; Clarksburg, \$3,200; Lee-Stockbridge, \$4,548; Richmond, \$3,852; Windsor, \$2,887; Williams-town, \$1,000.

Mayor Hibbard has sent to the Board of Aldermen recommendations for an additional \$200,000 for repaving streets.

Fittsfield, Mass.—A proposition has recently been presented to the Finance Committee of Council to have South street paved at a cost of \$50,000.—Arthur Farnham, City Engineer.

Worcester, Mass.—The Joint Standing Committee on Streets has voted to pave Austin street, from Main to High street, with granite blocks and to pave with macadam Grand street place in South Worcester; Dover street will also be macadamized.

Detroit, Mich.—Council directed the Department of Public Works to advertise for proposals for paving Livernois avenue, from Michigan avenue to Horatio street; estimated cost, \$13,043; also for paving Atwater street, from Joseph Campau to McDougall avenue; cost, \$3,664; both to be paved with cedar blocks, on concrete foundations, with Medina, Berea or other approved curbing.—J. J. Haarer, Commissioner.

Marquette, Mich.—All bids for grading and macadamizing Lakeshore boulevard and Walnut street were rejected; improvement will be done by day labor.—James F. Anderson, Clerk Park, Cemetery and Street Commission.

St. Joseph, Mich.—Council contemplates grading and paving portions of sundry streets; specifications, etc., at office of Harry L. Murphy, City Clerk.

Duluth, Minn.—G. G. Hartley is planning new road to the north, to be two miles in length and to run from St. Mary's street, Woodland, to the town line Section 2.

St. Joseph, Mo.—The city proposes to pave Louis street, between Fourth and Fifth streets.

Butte, Mont.—A resolution has been introduced in Council creating improvement district No. 53, and providing for paving, curbing, etc., in the district.

Concord, N. H.—\$125,000 has been appropriated by the Legislature for highways for this State; improvements will be made as soon as possible.

Camden, N. J.—The property owners of Twenty-fourth street, from Federal to Howard streets, have signed a petition which will be presented to Council, asking for the paving of that thoroughfare.

Hoboken, N. J.—Specifications for repaving Clinton avenue with bitulithic have been approved by the West Hoboken Town Council.

Lakewood, N. J.—The county is planning the construction of a new road from Adelphi in Howell township to this place.

Newark, N. J.—The Board of Public Works has adopted resolutions for paving Fillmore street with brick.

The Board of Works passed over Mayor Haussling's veto the resolution directing the Chief Engineer to prepare plans and specifications for the repavement of Market, Ferry and Bowery streets with wood block under the Jersey City paving act.

Newton, N. J.—The Sussex County Board of Freeholders has decided to make arrangements for better roads in this town and section; James Baldwin can be addressed.

Buffalo, N. Y.—The Board of Aldermen has received a communication from the property owners on Purdy street, protesting against the paving of that thoroughfare, between Laurel and East Utica streets.

Glens Falls, N. Y.—Eugene Crane, of Amsterdam, has been engaged by the Town Trustees to lay out the plans for paving.

Cambridge, N. Y.—The proposition to borrow \$20,000 on bonds for the purpose of ma-

cadamizing the main street in town was voted down.

Fulton, N. Y.—Protests are being made against the proposition to pave Oneida street, from Second to Sixth streets; Worth street, from west end of the lower bridge to West Fifth street, and Hannibal street, from West First to West Fourth street.

Kingston, N. Y.—Council proposes to pave Broadway, from Spring street to North Front street.—Address City Engineer Codwise.

Little Falls, N. Y.—The Mayor is in favor of street paving and has asked the Board of Aldermen to take up the matter; a resolution has been passed for the paving of a portion of Elizabeth street with brick paving.

Lyons, N. Y.—Plans and specifications for curbing and macadamizing Catherine street have been accepted by the Board of Aldermen.

Poughkeepsie, N. Y.—The Board of Public Works has decided to repave Mechanic street, from Main to Cannon street with vitrified brick on a concrete foundation, with cement-filled joints, and to lay gutters and curbs in Montgomery street, from Market to Pine street.—R. J. Shield, Clerk.

Rochester, N. Y.—Council is considering the following street improvements: Rugby street, trap rock macadam pavement, from south end thereof to Chili avenue; also the construction of a cement walk 5 feet in width, and a sewer from a point near the south end of street to Chili avenue; estimated expense, \$32,000, per foot front \$7. Augustine street, trap rock macadam pavement, from Dewey avenue to Spaulding street; estimated expense, \$17,000, per foot front \$5.25. Delaware street brick pavement, from Anderson avenue to Atlantic avenue; estimated expense, \$5,500, per foot front \$5. Also for cement walks as follows: Oneida street, from Portland avenue to Zeigler street; estimated expense \$1,000, per foot front 50 cents. Garfield street, from West avenue to Chili avenue; estimated expense \$2,700, per foot front 60 cents. Magne street, on the west side from Lyell avenue to Saxton street, estimated expense \$600, per foot front 60 cents. Leavenworth street, on the west side, from Glenwood avenue to Glendale Park; estimated expense \$200, per foot front 60 cents. Bingham street, from Sawyer street to Magnolia street; estimated expense \$1,400, per foot front 60 cents. Rutgers street cement walks, on the west side thereof, from south end to Monroe avenue; estimated expense \$300, per foot front 60 cents.—William Ward, City Clerk; Frederick T. Elwood, Commissioner of Public Works.

Welles, N. Y.—Good roads are being discussed for Fulton County; Chairman B. W. Mosger of the Good Roads Committee of the Supervisors can be addressed.

Carrollton, O.—Council has passed Ordinance No. 47, determining to proceed with the improvement of West Main or Market street, from the Wheeling and Lake Erie Railroad track to the intersection of the Minerva road in the Village of Carrollton, by grading, paving, curbing and draining the same.—I. E. Blythe, Mayor.

Canton, O.—Clerk Zellers, of the Board of Public Service, was instructed to advertise for bids for the improvement of Gay street, by grading, curbing and laying sidewalks; for the improvement of St. Elmo street, by grading, curbing and laying sidewalks.

Cleveland, O.—Council has adopted resolutions for paving St. Clair avenue, N. E., from East Ninth to East Forty-ninth street.

Delaware, O.—Council and the property owners have decided on asphalt block for paving of Lincoln avenue from Sandusky to Liberty street.

Bids will be received by the B. P. S. for paving Williams street with vitrified brick.

East Liverpool, O.—Council has instructed the City Solicitor to prepare a resolution for the paving of Pennsylvania avenue.

Girard, O.—The Township Trustees have decided to advertise for the sale of bonds in the aggregate of \$30,000, to be used in part for the improvement of five miles of dirt road.

Hamilton, O.—Council has received a petition for paving South Front street, from Sycamore to Crawford's run, and has passed a resolution for improving Elvin avenue, from Park avenue to Prytania avenue, by grading, curbing, guttering and laying cement sidewalks.—A. L. Smedley, President.

Mansfield, O.—The City Auditor will receive bids July 27 for the purchase of \$19,000 4 per cent. road improvement bonds.

Newark, O.—Bids will be received at office of the City Auditor for the purchase of bonds for the improvement of North Second, High, East Main, Eddy and Clinton streets, by paving and curbing.

Niles, O.—The County Commissioners will receive bids until July 11 for purchase of \$35,000 road improvement bonds, to bear interest at the rate of 4½ per cent., payable semi-annually.

Sandusky, O.—Council has authorized the sale of \$8,000 bonds for improving Washington street, from Jackson to Shelby street, by grading, draining and paving.

Scio, O.—The city will vote on the sale of \$25,000 bonds for street improvements.

Toledo, O.—Council will repave Collingwood avenue, from Monroe street to Ashland avenue.

Youngstown, O.—Glenwood avenue is to be paved, as Council has passed a resolution to pave the street. Robert McMaster, who represents the Fifth Ward, stated that it was not expected to get the pavement started before next spring, as by next year the details will have progressed so far that the pavement can be commenced.

Zanesville, O.—An ordinance has been passed for paving a part of Putnam avenue.

Guthrie, Okla.—The construction of two viaducts, one over the Rock Island and one over the Santa Fe Railroads, is provided for in bond issue just voted.

Bonds, \$270,000, have been authorized for building convention hall and for street improvements.

Braddock, Pa.—Plans are under way by the Commissioners for improving the Monroeville and Pittcain connecting road; the cost of improvements is estimated at more than \$20,000.

Homestead, Pa.—Plans are under way for a new road to be built back of this place; about 51 miles of road in all are planned.

Lebanon, Pa.—Bids will soon be received at the State Highway Department for construction of roads in Lebanon County.—Address State Highway Commissioner Hunter.

Portvue, Pa.—The Grand Jury has recommended the construction of a macadam road from this town to connect with the improved road at Lovedale hollow.

New Castle, Pa.—Councils have accepted the report of viewers on the matter of locating and establishing grades on Wildwood avenue, from Delaware avenue to Nashanock boulevard, and West County Line street, in the Sixth Ward, from Patterson avenue to Washington street, and ordinances will be drawn for the establishing of the grades. Third street, from Clayton avenue to Simpson line, will be located, graded and established by ordinance, as will Fourth street, between the same two streets; Patterson street, from Borough Line street to West County Line street, will be located, ordained and established, as will Sixth street, from Clayton to Maple avenue; Liberty street, from Clayton street to the city line, will be located, widened and ordained after an ordinance is introduced in Councils, while Logan street, from Winter avenue to Moody avenue, will be located, ordained, graded and established, too.

Reading, Pa.—Residents in the vicinity of Schuylkill avenue and Windsor street want that portion of the avenue where the city stopped paving with brick up to the approach of the Schuylkill avenue bridge, paved in order to make a neat and complete job of it.

Scranton, Pa.—Mayor J. Benjamin Dimmick has signed the last of the batch of pave ordinances, which makes the sixteenth that has passed through the Mayor's hands since the organization of the present Council. The ordinances signed were those for the paving of West Market street, from Church to Brick avenue, and from North Main to Church.

Westchester, Pa.—Council has decided to improve Strasburg road.

Wilkes-Barre, Pa.—Ordinances have passed Council for paving Washington street, between Butler and Beaumont streets, and Grant street, between Market and South streets, and for paving and curbing Hancock street and Coal street.

Williamsport, Pa.—The West Fourth street repaving question has again been revived; it has been suggested by members of highway committee that the paving of Campbell street be postponed and the money devoted to the paving of West Fourth street.

Blountville, Tenn.—The Sullivan County Board has decided to issue \$100,000 road bonds.—Address Clerk of the Board.

Bristol, Tenn.—The proposition to issue \$100,000 bonds for good roads in Sullivan County carried by over 600 majority, and the County Court will at once make arrangements to float the bonds and begin the work. A macadamized road will be built from Bristol to Blountville, the latter the county seat, a distance of nine miles. Other roads in the county will be improved with the remainder. It is estimated that the road can be built for something like \$8,000 per mile, leaving a considerable sum for improvement elsewhere.

Chattanooga, Tenn.—The property owners on Highland Park avenue, between McCallie and George streets, on Rossview avenue, between Main and East End, and on Vine street, between Wiehl and Palmetto, are requested to meet the Board of Public Works to consider the kind of pavement to be used in their districts.

Knoxville, Tenn.—The Board of Public Works, on motion of Chairman Fleniken, has instructed the City Engineer to prepare new plans at once for the Vine avenue viaduct.

Stanford, Tex.—Council has directed sur-

veys to be made for paving, estimated to cost \$20,000.

San Antonio, Tex.—Plans are under way for a modern new road to be constructed from this city to Laredo, a distance of about 150 miles; the San Antonio Business Men's Club is in favor of the proposition.

Waco, Tex.—Plans are under discussion for better roads for this city and vicinity; Chairman Seth P. Mills can be addressed for further information.

Yoakum, Tex.—Arrangements are being discussed for improvements to roads and highways.

Salt Lake City, Utah.—Thomas Kearns and others petitioned that G street be paved from South Temple to First avenue, with asphalt, and the Recorder was instructed to advertise notice of intention. The Recorder reported that the notice of intention for curb and gutter on all the north and south streets, between South Temple and Third South and Second and Tenth East streets has passed and the Board of Works was instructed to advertise for bids.

Property owners along Third South street, from State to Tenth streets, are agitating the question of asking Council to pave the thoroughfare.

Alexandria, Va.—Council has decided to pave the principal streets in the city with vitrified brick.

Farmville, Va.—Contracts are soon to be awarded for three miles of road leading out of this town.

Jonesville, Va.—A new road is to be constructed from this town to Ben Hur, to be one of the best roads in the State.

Norfolk, Va.—The Controllers have asked City Council to appropriate \$24,402 for furnishing and laying 11,565 feet of curb.

The Council has approved of resolution providing for an appropriation of \$8,200 for the paving of Henry street, in the Fourth Ward.

Richmond, Va.—C. W. Throckmorton, member of the Legislature from Henrico, has addressed a letter to the Board of Supervisors asking that Judge Scott be petitioned to order an election on proposition to issue \$300,000 bonds for permanent road construction of the county.

Roanoke, Va.—City Engineer Bates has plans for improvements to a number of streets in the city, including the paving of Wells avenue with either vitrified, bitulithic or macadam and the macadamizing of Eleventh street and Melrose avenue, northwest.

Spokane, Wash.—The paving of Sixth avenue, from Bernard street to Wall street, will be started this summer; asphalt will be used.

Yakima, Wash.—A Good Roads Association has been formed and \$300,000 bonds are to be issued for improving roads and highways.

Bridgeport, W. Va.—The Town Council has ordered the Street Committee to purchase 20,000 paving bricks and other necessary material for laying a 4-foot sidewalk from Growler's lane east to N. M. Jones's; the Street Committee is also ordered to lower the grade in front of Will Bartlett's property on Main street.

Welch, W. Va.—The Town Council has decided to call a special election shortly to vote on issue of \$25,000 bonds, the proceeds to be used in paving streets and installing a sewerage system.

Appleton, Wis.—A petition is being circulated asking for creosoted block pavement on Washington street, from Morrison to Lowe street.

SEWERAGE

Hayward, Cal.—The Board of Town Trustees will shortly call a special election for voting bonds for the improvement of the sewer system.

Monrovia, Cal.—A committee has been appointed to consult engineers and ascertain the cost of constructing a sewerage system.

San Francisco, Cal.—The Board has been petitioned for the construction of a sewer in Steiner street, between Lombard and Chestnut streets.

San Jose, Cal.—Council has received a petition from the United Gas and Electric Company asking for permission to connect its plant at the foot of Otterson street with a branch of the city sewer system.

Santa Cruz, Cal.—Council has adopted a resolution for rebuilding a portion of the sewer on Laurel street, from California to Mission street.

Middletown, Conn.—Arrangements have practically been completed for laying a sewer through Silver street at the Farms.

Blakely, Ga.—The election to issue bonds for sanitary sewer system was lost, and it is probable that another election will be called.

Cedartown, Ga.—About \$15,000 will be expended for pipe sewers.—S. S. Evans, City Engineer.

Belvidere, Ill.—Council has ordered the extension of the sanitary sewer system in Prairie street from a connection in Fourth

street to a point 50 feet north of the line of Fifth street.

Ft. Wayne, Ind.—Bids will shortly be advertised for the construction of the sewer system for the Forest Park district.

Highland Park, Ill.—Engineer W. S. Shields, 140 Dearborn street, Chicago, is preparing plans for a purification plant and a system of reinforced concrete sanitary sewers for the Board of Local Improvements; estimated cost, \$45,000.—Alex. Robinson, President Highland Park.

Logansport, Ind.—The Board of Public Works has had plans prepared for a storm water sewer, to cost \$10,000; the city will build.—C. F. Hammon, City Clerk.

Peru, Ind.—Bids will be received about the latter part of the month for about 2,900 feet of 20-inch vitrified sewer and about 200 feet of 10-inch vitrified sewer.—William O'Hara, City Clerk.

Springfield, Mass.—Charles M. Slocum, city, will prepare plans for the Portland cement concrete sewer to be constructed in Ferry and Cypress streets; the work will probably be done by the city force.—E. A. Newell, City Clerk.

Detroit, Mich.—Council directed the Department of Public Works to advertise for proposals for construction of a lateral sewer.—J. J. Haarer, Commissioner.

Grand Rapids, Mich.—Council has authorized an issue of \$116,000 additional sewer bonds.

Trenton, Mich.—Mason L. Brown, of Detroit, has been selected to prepare an estimate of probable cost of a sewerage system, before submitting question to vote.—Hobart Foy, Village Clerk.

St. Paul, Minn.—Plans have been made by City Engineer Rundlett for the construction of a sewer on Pennsylvania avenue, from L'Orient street to Jackson street, and on Columbia street, from Glencoe to Linden.

St. Joseph, Mo.—A resolution will shortly be prepared for the construction of the sewers under the appropriation of \$250,000; it will include construction of Blacksnake sewer to extend from present terminus at alley north of Parker street, to a point south of Broadway, on Gardner avenue, and the eastern extension addition sewer commencing at Twenty-eight and Francis streets, and extending north and west.

Hampton, N. H.—The citizens have voted in favor of extending the sewer system at a cost of \$10,000.

Asbury Park, N. J.—The State Board of Health will take steps to enforce the law relative to disposal of sewage in all the towns along the coast having an ocean outlet; it is hoped that the work of putting in the septic systems will be started in October.—Dr. Bruce Keator, Secretary, State Board of Health.

Millville, N. J.—Plans are to be prepared at once for new \$20,000 sewage disposal plant.

Hetcong, N. J.—The Mayor and Council recently made an appropriation for building a sewer or drain from Mechanic street to the brook through the property of D. J. Drake.

Passaic, N. J.—Council has passed an ordinance for laying sanitary sewer in Gregory avenue, between Howe avenue and Madison street.

Trenton, N. J.—Ordinance has passed Council for constructing sewers No. 416 in Rushing street, No. 329 in North Olden avenue, No. 415 in Beechwood avenue, and No. 393 in Garfield avenue; Council has also given notice of intention to cause sewer No. 417 to be constructed in Chestnut avenue and Lalor street, and drain No. 70 in Hart avenue, and to clean and repair portions already built, and to build necessary manholes, inlets, etc.—Walter Madden, Mayor; Harry S. Salter, City Clerk.

Brooklyn, N. Y.—Superintendent of Sewers John J. Halloran, of Queens, states that all of the sewers in the public system in the villages of Flushing, Jamaica and the Rockaways are too small and will have to be rebuilt before very long.

Buffalo, N. Y.—At recent meeting of the County Supervisors the Almshouse Committee reported that the sewer at the Almshouse was in poor condition and recommended the construction of a new one.

Fayetteville, N. Y.—Engineer Smiley is preparing plans for a \$25,000 sewer system for the town.

Ft. Edward, N. Y.—At a special election it was voted to raise \$20,000 for repairs and extension to the present sewer system.

Lake Placid, N. Y.—The Ruessaumont Sewerage Commission rejected all bids for furnishing and laying about 2½ miles of sewers.—Geo. A. Stevens, Chairman; C. E. Collins, Consulting Engineer, Drexel Building, Philadelphia, Pa.

Jefferson, N. Y.—County Surveyor Matson has been authorized to prepare plans and estimate for sewers and disposal plant for this village.

Perry, N. Y.—The proposition to bond the village for \$25,000 to extend the sewer system was again defeated, and a vote may again be taken later on.

Phoenix, N. Y.—Plans for a new system of sewers and sewage disposal plant have been approved by the State Health Commissioner, and bids will soon be called for.

Rochester, N. Y.—Council is considering the construction of Main street East outlet sewer from the tunnel at Main street river bridge to the center of North Water street, thence northerly in North Water street to the Central avenue tunnel; estimated expense, \$24,000, per foot front \$1.25; also cleaning of Reynolds street sewer, from Bronson avenue to Tremont street; estimated expense \$200, per foot front 10 cents.—F. T. Elwood, Commissioner of Public Works.

Arlington, O.—In order to stop the pollution of the Scioto River by the drains and ditches from Arlington, it is probable the village will construct a sewage purification plant of its own; this is the solution of the matter by city authorities after considering it for several weeks, and this is the plan that will be taken up by Arlington citizens within a few days; various plans have been suggested since the discovery several weeks ago by Health Officer Horton that ditches at Arlington were pouring pollution into the Scioto.

Ashtabula, O.—The residents of East Sibley street have presented a petition to Council asking for a sanitary sewer.

Barberton, O.—An ordinance to proceed with the construction of the Holmes avenue sanitary sewer has been passed by Council.

Canton, O.—The Board of Public Service has rejected all bids for the construction of a storm water sewer in West Tuscarawas street, from Harrison avenue to Maryland avenue, and instructed Clerk Zellers to re-advertise for new bids; the four bids were all thrown out because of technicalities on the advice of City Solicitor Blake; in order that similar delays in improvements in the future may be averted City Engineer Starrett was instructed to prepare forms of bids instructing prospective bidders how to prepare their bids in conformity with legal requirements.

Clerk Zellers will also receive bids for the improvement of Meyers court by constructing a sanitary sewer; for the improvement of North Rex street by constructing a sanitary sewer; for the construction of a storm water sewer in Aultman avenue, Woodland avenue, Bellevue avenue and Cleveland avenue.

Cleveland, O.—The City Clerk has plans on file for the construction of sewers on a number of streets in the city, including University road, Parkwood drive, East One Hundred and Eleventh street, Revere court and St. Clair avenue, N. E.

Dayton, O.—Storm sewers, to cost \$89,500, are forthcoming from an ordinance passed by Council.

Delaware, O.—F. D. King, City Auditor, states that the matter of constructing a sewage disposal plant is still in the hands of the committee.

Galion, O.—The city has voted unanimously in favor of a general sewer system; the matter will now be taken up by the Board of Public Service and put through as speedily as possible.

Hamilton, O.—Council has been asked to construct a sanitary sewer in North D street, from Main street to Park avenue, and on West Main street to the belt line.

Lima, O.—Council has passed a resolution for the construction of a sewer on Reese avenue.

Newark, O.—Bids will be received by the City Auditor July 16 for the following sewer bonds: \$4,842.28 Pataskala street, \$1,560.06 Hoover street, \$1,604.80 Clinton street, and \$963.39 Month street; all bonds bear interest at the rate of 5 per cent., payable semi-annually.

Salem, O.—The County Commissioners will advertise for bids for the construction of a 5-foot brick sewer in the Salem and Guilford road, south of the city.

Springfield, O.—City Council has passed an ordinance for the construction of a combined sanitary and storm sewer in Warder street, from Buck Creek to Greenmount avenue, and a connecting sewer in Williamson street, from Warder street to Highland avenue.

Steubenville, O.—The Board of Health has recommended that Council construct three sewers on Church and North Eighth streets, and an alley north of Pleasant street; it was referred to the City Engineer.

Youngstown, O.—Residents of Ina avenue have filed a protest with the City Clerk because sewers and sidewalks that were promised have not been constructed in that street.

Council has passed a resolution providing for the construction of a sewer in Homer avenue, from city limits to Hillman avenue, and in Ina avenue, from Edwards street to Hillman street, with a storm water outlet to Market street.

Guthrie, Okla.—Improvements in the sewer system are to be made, bonds having been voted.

Carbondale, Pa.—Council has passed an ordinance for the construction of a sewer on South Main street.

Carlisle, Pa.—A recent election submitting a proposition to Carlisle's voters to authorize a \$60,000 bond issue for sewers for Carlisle, resulted in a four to one victory for opponents of the plan.

Corry, Pa.—The City Engineer is completing plans for the East Church street sewer system; also for Gold street system of sewers; bids will soon be called for.

Johnstown, Pa.—Councils have decided to extend the Vaughn street sewer and have also directed the Street Commissioner of the Third District to lay a sewer in A street, Twentieth Ward.

Lancaster, Pa.—Plans for the new sewer system have been approved by the State Health Department; the city will have until January 1 to make preparations.

Millville, Pa.—Council has authorized the Sewer Committee to retain an Engineer to prepare plans for a sewage disposal plant, to cost about \$20,000.

New Castle, Pa.—Councils will be called upon to consider the advisability of constructing a sanitary sewer on Forest street, between Pearl street and Butler avenue, also on Franklin avenue, between Stanton to the intersection of Pittsburg and Ray streets.

Philadelphia, Pa.—Plans for seven new sewers have been approved by the Board of Surveys and bids for the work will be advertised in the near future; the main sewers passed on include those of the Cresheim Creek, the Rock run system, the Wissahickon high level system and the Lincoln avenue sewer.

Reading, Pa.—Plans and specifications have been started in the City Engineer's office for the construction of an extra unit at the house sewage disposal plant, Fritz's Island. G. A. Johnson, of the firm of Hering & Fuller, sanitary experts, having the supervision of the system, with City Engineer Beard, started the preliminaries, and matters arranged for the advertising for proposals for its erection.

West Chester, Pa.—Fred Heed, President, the Borough Council, has called a special meeting to consider the question of building a sewer system.

Providence, R. I.—A petition has been granted by the Sewer Committee for the construction of a sewer in Congdon street, from the present terminus of the sewer to Jencks street; petitions were also received for the construction of a sewer in Niagara street and in Morris avenue, from near Cypress street to Savoy street.

Huron, S. D.—Council has received a petition for the construction of an extension to the Beach street sewer.

Angleton, Tex.—Bids will shortly be asked for purchase of drainage bonds of the city.

El Paso, Tex.—Council has selected Hering & Fuller, of New York, to prepare plans for sewage disposal plant.

Salt Lake City, Utah.—An ordinance was recently introduced in Council providing for the construction of an outlet pipe or conduit from the intercepting sewer at a point near Seventh North and Eighth West streets to the gravity sewer at a point near Ninth North and Eighth West streets.

Wenatchee, Wash.—Petitions for new sewer districts will shortly be presented to Council by property owners in the business portions of the town.

Burlington, Wis.—P. J. Hurtgen, of Burlington, is preparing plans for a sewerage system.—L. J. Brehm, City Clerk.

Janesville, Wis.—C. V. Kerch, City Engineer, has completed plans for a main outlet sewer, consisting of 6,420 linear feet of 48-inch, 1,880 linear feet of 46-inch and 138 linear feet of 36-inch pipe; it will be of brick, reinforced concrete or plain concrete; he has also completed plans for six miles of sewers of various sizes.

Milwaukee, Wis.—The Board of Public Works is preparing the advertisement for bids for the construction of a sewer that will drain a district between Washington street and Greenfield avenue, and Twelfth and Fifteenth avenues.

WATER SUPPLY

Jonesboro, Ala.—The town and Morris Adler, of the Bessemer Water Works Company, have not as yet reached an agreement for the furnishing of this town with a water system, but it is believed that before long arrangements for the extension will be made.

Pasadena, Cal.—The Council Water Committee and the Directors of the North Pasadena Land and Water Company recently held a joint meeting, at which time the directors of the company stated that the company expected to lay a larger pipe from the reservoir to Fair Oaks avenue and Montanna street.

Pensacola, Fla.—The city will take over the water works plant at once and is preparing to expend \$57,000 for improving the plant and extending the system.

Millen, Ga.—Bids will be received at any time for the purchase of \$30,000 5 per cent. 30-year light and water bonds.—H. Q. Belle, Mayor.

Alton, Ill.—The city is considering the purchase of the present water works plant.

Oak Park, Ill.—James H. Thompson, 1606 Fisher Building, Chicago, is preparing plans for water works, to cost about \$110,000.

Waukegan, Ill.—The Water Works Committee was instructed to investigate the cost of installing the meter system.—H. Thacker, City Clerk.

Winchester, Ill.—James H. Thompson, 1606 Fisher Building, Chicago, is preparing plans for the proposed water works, to cost about \$30,000.

South Bend, Ind.—The Superintendent of the Water Works recommends the purchase of additional pumping machinery for the water station.—W. A. McEnery, President, Board of Public Works.

Wolcottville, Ind.—Work has been started on the surveying for the new water works plant, to be constructed near Myer's sawmill.

Carroll, Ia.—The city will at once let contracts for the construction of a concrete reservoir.—J. A. Dougherty, City Clerk.

Fort Dodge, Ia.—The matter of a new pump for the water works plant is being considered.

Sioux City, Ia.—In support of the petition for better fire protection at Morningside, E. C. Peters, A. J. Siman and C. P. Jochimson appeared before Council; they said the suburb is practically at the mercy of flames and thought a standpipe would relieve the situation. The matter was referred to the Street Committee, and, at the suggestion of Alderman Harding, instructed to confer with the Water Works Trustees.

West Springfield, Mass.—The Boston and Albany Railroad is not satisfied with the rates charged by the water company and is considering the construction of a reservoir of its own.

Escanaba, Mich.—The Escanaba Water Company will construct a filtering plant, to be operated in connection with its pumping station.

Sheboygan, Mich.—The City Water Company will build a filter plant.—Address Secretary.

Adams, Minn.—M. Tschirgi & Sons, Consulting Engineers, Dubuque, Ia., are preparing plans and specifications for extension of water works.

Clinton, Miss.—The citizens will vote on the question of issuing bonds for extending water works and purchase of fire apparatus.

Bemidji, Minn.—An election will be held August 11 to decide the question of issuing bonds for improving water system and purchasing fire apparatus.

Round Mountain, Nev.—Articles of incorporation have been filed by the Round Mountain Water Company, with a capital stock of \$100,000 and with S. K. Smith and Wm. Roman, both of Tonopah, as incorporators; the object is to construct a water system for this town; the main line will run the entire length of Main street and is to be a 5-inch pipe.

Salem, N. J.—Council has authorized the Water Commission to drive wells necessary to provide an ample supply of water and feed wells for down-feed system; to connect artesian wells to the pumping system and to make such alterations as may be required to the filter reservoirs in order that they may be used as subsidence basins, the cost of such improvement not to exceed \$10,000.

Brooklyn, N. Y.—Despite protests made by residents of Suffolk County against the proposal to tap that county for additional water supplies for Brooklyn from that territory, the plans of the Board of Water Supply were approved by the Board of Estimate. The cost of the scheme, which will give Brooklyn 250,000,000 more gallons of water a day, has been estimated at \$47,173,000. The Board's action does not necessarily mean that the city is committed to that expenditure. The action of the Board did not carry with it an appropriation. Before any further step can be taken the project must receive the sanction of the State Board of Water Supply.

New York, N. Y.—The Board of Estimate voted \$22,600,000 to the Board of Water Supply for the carrying on of the work of bringing water to this city from the Catskills. The bonds for this work are exempt from the debt limit. This appropriation brings the total granted to the Water Board up to about \$59,000,000. The estimated cost of the new aqueduct is \$161,000,000.

Cortland, N. Y.—Cortland City has voted, 1,084 to 188, to buy the water work plant from the Cortland Water Works Company for \$300,000.

Fishkill Landing, N. Y.—Charles Hague, 52 Broadway, New York City, has been engaged to prepare plans for water works.

Lockport, N. Y.—Council has authorized the sale of \$35,000 water supply bonds for the completion of the Niagara River water supply system.

Le Roy, N. Y.—The Le Roy Power and Milling Company is having plans prepared for a dam, to be erected at Main street, for purpose of raising water lever 8 feet, establishing an artificial lake for pleasure purposes and for creating additional water power; work will be done jointly by the village and the Le Roy Company.

Roosevelt, L. I., N. Y.—The Board of Trade has appointed Charles Whitehouse, H. Crandall and Charles Edwards, Jr., as a committee to investigate the question of constructing water works.

Roslyn, L. I., N. Y.—Petitions are being circulated for the establishment of a municipal water plant for this town.—Address the Board of Trade.

Minot, N. D.—E. S. Severance, City Engineer, states that it is proposed to construct municipal water works at a cost of \$150,000.—G. L. Morrow, City Auditor.

Cincinnati, O.—Bids will be received July 24 for the purchase of \$500,000 4 per cent. 40-year water works bonds; optional after twenty years.—Ernest Von Barger, City Auditor.

Columbus, O.—The Board of Public Service has petitioned Council for a bond issue of \$40,000 for water works supplies.

Covington, O.—Council has referred the report of Engineer Hornung on the plans for the emergency reservoir to the Board of Water Works Commissioners.

Hamilton, O.—Council is considering a resolution for issue of \$50,000 bonds for repairing and remodeling the city water works plant.

Hamilton, O.—An election will be held August 15 to decide the question of issuing \$50,000 water works improvement bonds.

Newark, O.—The Board of Public Service has turned down all bids for the construction of the new water works plant.

St. Henry, O.—Estimates are being prepared for water system.—Wm. H. Romer, City Clerk.

Youngstown, O.—Assistant City Engineer Harry Reel and his aids have concluded the work of making individual surveys of the land needed for the proposed reservoir at Berlin; Mr. Reel will shortly make his report of the work done at Berlin.

Ada, Okla.—The dam at the water works reservoir in this town has been washed away and the town is without a water system.

Afton, Okla.—Bonds have been voted for the construction of water system.

Ardmore, Okla.—City Engineer Walter C. Dean has reported that the cost of raising the city dam 6 feet, making a roadway 20 feet wide on top, a 2-foot horizontal to 1-foot vertical clay fill, a masonry wall, stripping land, etc., will cost \$28,585. For extending water mains in new district cost will be \$5,000.

Bristow, Okla.—Estimates are being prepared for light plant and water system.

Duncan, Okla.—Estimates are being prepared for water works, to cost about \$12,000.

Sallisaw, Okla.—The O'Neill Engineering Company of Dallas, Tex., will have charge of constructing the proposed water works for Sallisaw.—Alex. S. Forman, Town Clerk.

New Cumberland, Pa.—The Riverton Water Company, of Cumberland, is contemplating improvements which may require over a year to complete; a large storage reservoir is to be built back of this city, with a capacity of 3,000,000 gallons; an entire new plant is being installed in Mechanicsburg at a cost of \$200,000.

Franklin, Pa.—Bids will be received by Council for the sale of \$14,000 water bonds.

Scranton, Pa.—An effort will be made by some of the Councilmen this year to have a new style of fire hydrant introduced in the city; the sum of \$2,500 will be appropriated for the change.

Lancaster, S. C.—Preparations are being made for installing a water works system.

Geddes, S. D.—Estimates are being prepared for water system.

Brownsville, Tex.—The Attorney General has authorized an issue of \$17,000 5 per cent. water works bonds.

Dallas, Tex.—The sale of \$50,000 of the \$500,000 water works improvement bonds issued last October was consummated when the bonds were sold to Kahler & O'Connor of New York at 94.22 and interest from April 1, the total purchase price being \$47,565.56.

Spokane, Wash.—The Board of Public Works has plans for the laying of a new 12-inch water main on Freya street, from Sprague avenue south to Seventeenth avenue; it is also proposed to extend the main north along Sprague avenue to about Mission avenue.

Wenatchee, Wash.—An election will be held July 13 to decide the question of issuing \$55,000 bonds for extending water system.—F. D. Case, Chairman Finance Committee.

Manitowoc, Wis.—The Manitowoc Water Works Company has engaged an Engineer to investigate and report on plans for improving the plant.

LIGHTING AND ELECTRICITY

East Point, Ga.—Specifications are being prepared for a \$15,000 electric light system.

Mackay, Ida.—The Lost River Light and Power Company will erect a lighting plant; the waters of Cedar Creek will be developed and a 700-foot pipe-line to a concrete power house will generate 150-h.p. for the Mackay mines and 50-h.p. for lights to the town; R. L. Lockwell, of Ontario, Ore., is interested.

Chicago, Ill.—The Western Electric Company will immediately begin the erection of three new buildings, involving an expenditure of \$500,000, at its Hawthorne works, at Forty-eighth avenue and West Twenty-second street.

Garrett, Ind.—The city contemplates making improvements to the municipal electric lighting plant, the cost of which is estimated at \$15,000.—R. S. Ashe, Richmond, Ind., Engineer; William Watson, City Clerk.

Hartford City, Ind.—The plant of the Hartford City Lighting Company will be enlarged and improved; the improvements include two steam boilers.—W. H. Yule, Superintendent, Hartford City.

Madison, Ind.—Council is asking for bids for the lighting of the streets, alleys and public places with electricity, and for furnishing commercial lighting and power; also for management and operation of an electric railway system in the streets of this city for a period of ten years; the bids will be received jointly or separately.—F. M. Harper, Chairman Public Utilities Commission.

Ft. Scott, Kan.—The Fort Scott Gas and Electric Company will expend \$50,000 in improvements this summer; the company contemplates putting up sixteen miles of alternating current electric light wires; the company will also put in a large street car generator at the power house.—F. D. Martin, Superintendent.

Clinton, La.—A committee has been appointed to obtain prices and estimates for an electric light and ice plant for this town; plans and specifications are being prepared.—I. L. Heyman is interested.

Breckenridge, Minn.—D. J. Jones, City Clerk, will receive bids for 1,000 incandescent electric lamps.

Fergus Falls, Minn.—The Water and Light Commission contemplates buying a generator.

Pine River, Minn.—The Village Council has granted a franchise for the installation of a gas plant.

St. Joseph, Mo.—Council will at once order poles and lamps for extending the lighting district.—Walter C. Stewart, Superintendent.

Genoa, Neb.—The Village Council has employed John W. Early, of Columbus, Neb., to prepare plans, etc., for the proposed municipal electric lighting system to be installed at a cost of \$11,000; the equipment yet to be purchased includes a 30-h.p., 3-phase, 60-cycle, 220-volt motor, alternating current, and transformers of various sizes.

Lancaster, N. H.—The Jones & Lonscott Electric Company has reorganized with a capital of \$40,000; improvements will be made in electric plant.

Canton, O.—The Clerk of the Board of Public Service and City Solicitor were requested to prepare a form of advertisement for furnishing street lighting to take the place of the four hundred and twenty gas and gasoline lamps for which the contract with the Sun Vapor Street Light Company expired April 1 last.

Columbus, O.—The Franklin County Board will issue \$160,000 in bonds for light improvements.—Address County Auditor.

West Milton, O.—L. A. Pearson has started preliminary work on a power plant to be erected near West Milton, at a cost of \$10,000; he will install a 75-kw. alternating-current, 2,300-volt, single-phase generator.

Mitchell, S. D.—The Mitchell Power Company has purchased a new site and will expend \$50,000 in improvements; the company will commence in the course of two weeks the erection of the buildings, including a new brick power house, to cost \$6,000; it will be equipped with best possible electrical machinery and will have a double capacity throughout; a portion of the machinery in the present plant will be added to the new plant; the electric system will be improved throughout the city in the rebuilding of the pole and wires.

Grand Rapids, Wis.—W. H. Schott, American Trust Building, Chicago, Ill., has prepared plans for a power plant to be established in connection with the electric plant.—J. A. Gaynor, Clerk of the Light Committee.

Creston, B. C., Can.—The Creston Electric Light and Telephone Company has engaged C. H. Mitchell, Consulting Engineer, to prepare plans for an electric plant to be operated by power from the Goat River Falls.—George M. Benny, President.

FIRE EQUIPMENT

Fort Smith, Ark.—Architect Blaisdell prepared plans for new fire station No. 3, for which \$10,000 has been appropriated.

Hayward, Cal.—The citizens are to vote on issue of \$1,500 bonds for additional apparatus for the Fire Department.—Address Board of Town Trustees.

Los Angeles, Cal.—Funds have been appropriated to pay for plans for new fire engine house, to be erected at Normandie and Vernon avenues.

Hartford, Conn.—An additional appropriation is to be asked for the new fire engine house in the southwestern part of the city, in addition to \$24,000 already secured.—F. H. Parker, Corporation Counsel.

Pensacola, Fla.—Mayor C. C. Goodman recommends the purchase of a combination hose wagon, to be placed on Garden street, and the erection of a truck house in the lower western portion of the city; also the purchase of eight play pipes with Callahan shut-off nozzles, four hydrant gates, four relief valves, twenty-five spanner belts, one set of Hale collars, one set of double harness and two sets of Hale collars and hangers.—Walter R. Becker, Chief Fire Department.

Averyville, Ill.—Council will expend \$6,000 for erecting fire house and for a combination hose and chemical wagon.—R. M. Mitchell, Clerk of the Board.

Moline, Ill.—A new fire station to provide protection in the east end of the city is to be erected at the corner of Fourth avenue and Twenty-seventh street; the new station is to be of modern construction and plans are to be drawn at once.

Hammond, Ind.—The Board of Public Works is taking figures on a new fire station to cost \$8,000; for further information address the Mayor.

Council Bluffs, Ia.—City Engineer S. L. Etnyre is preparing plans for a two-story fire engine house.

Hutchinson, Kan.—Contracts are to be awarded in the near future for the new fire station planned.—Address the City Clerk.

New Orleans, La.—A new chemical engine is to be purchased for new Fire Department building to be established at St. Mary street, near Rousseau street.—Councilman Kelly can be addressed.

Brockton, Mass.—Bonds, \$300,000, are to be issued for a new fire station, new hose wagon, etc.

Haverhill, Mass.—Council is considering petition for new fire station in the upper part of Ward 6.

North Andover, Mass.—At a special town meeting it was voted to erect a new \$20,000 fire house on what is known as the Tavern lot.

Springfield, Mass.—Council, at a meeting recently, appropriated \$6,000 for new auto fire apparatus.

Bemidji, Minn.—All bids were rejected for 500 feet of rubber-lined cotton fire hose and one two-cylinder (45 gallons each) chemical fire engine, new bids will be received; Council will also build a hose house.—Thomas Maloy, City Clerk.

St. Paul, Minn.—The site for the new engine house in the Macalester Park district has been definitely fixed upon and the Board of Fire Commissioners has been authorized by Council to purchase the ground at Grand and Ashland avenues.

Clinton, Miss.—An election will be held to decide the question of issuing bonds for the purchase of fire apparatus.—M. L. Menger, City Clerk.

Jamestown, N. Y.—A fire company is to be organized in Jamestown.—Alfred Anderson, President.

Rensselaer, N. Y.—Bonds, \$8,500, have been voted for equipping the Fire Department and \$5,000 for new fire headquarters in the upper section of the city.

Rochester, N. Y.—Sites have been decided on for new fire houses in the Twentieth and Twenty-first Wards.—Address President of the Council.

Wilmington, N. C.—The city will add to the fire fighting equipment a new combination chemical hose wagon, the expenditure amounting to some \$10,000.—W. A. French, Jr., Chairman, Fire Committee.

Canton, O.—The Board of Public Safety is looking for a site for a central engine house and patrol station, to be built on plans prepared by Architect W. S. Efferson; Fire Chief Marshal has been instructed to build temporary fire department quarters from material from the old market house, which will be razed as soon as a fire site is secured.

Cleveland, O.—The question of annexing Collingwood to this city is now being discussed; a new fire station is badly needed at once in Collingwood.

Columbus, O.—Council has passed an ordinance appropriating \$29,000 for a new engine house at Fourth and Chestnut streets.

Covington, O.—Two new fire houses are to be erected on the recommendation of a Deputy State Fire Marshal, who visited here some time ago.

Dayton, O.—An appropriation of \$16,000 has been made to build engine house and purchase equipment.—Edward Philipps, City Auditor.

Delaware, O.—A site at Pearl and Martin streets is to be cleared to make way for large and modern new engine house for the Fire Department, to cost about \$36,000.

Erie, Pa.—The Board of Fire Commissioners will invite proposals for new fire engine to be located at engine house No. 4.—Address Mayor Liebel.

Pawtucket, R. I.—The local fire district has authorized the engineers to purchase 300 feet of new fire hose.

Dallas, Tex.—An appropriation of \$7,500 has been made for an alarm system.

Texarkana, Tex.—The Fire Department is planning to purchase additional fire fighting apparatus.—A. B. Deloch, Mayor.

Seattle, Wash.—Arrangements are being made to purchase additional fire hose; \$25,000 is to be appropriated for new engine house at Harvard avenue and East Union street.

Spokane, Wash.—The citizens of the Manito Park section are to petition Council this Fall for new fire station in that part of the city.

PUBLIC BUILDINGS

Double Springs, Ala.—Plans are to be secured soon for new State high school.—Address W. R. Bond.

Girard, Ala.—The School Board has decided to erect new school and committee has been appointed to secure plans for building to cost about \$10,000.

Mobile, Ala.—The Market and Buildings Committee, Councilman Smith, presiding, recently discussed ways and means for erecting a new City Hall and armory and auditorium.

Corning, Ark.—Plans have been completed for new \$8,000 jail to be erected on site of old structure.—Address Mayor for further information.

Searcy, Ark.—Gibb A. Sanders of Little Rock, will prepare plans for new school house to be of brick and cost \$12,000.

Berkeley, Cal.—The cornerstone has been laid of the new Town Hall, to be of modern construction.—Address Mayor Ferrier.

San Diego, Cal.—John C. Austin prepared plans for new two-story addition to the Logan Heights school, to be of brick, and cost \$20,000, to contain eight rooms.—Address Architect Austin, Pacific Electric Building, Los Angeles.

San Jose, Cal.—State Architect Sellon, Sacramento, has prepared plans for new State normal school, to cost \$250,000.

Pueblo, Col.—Plans are under way for a new Court House, which is to be erected at the corner of Tenth and Main street.

New Canaan, Conn.—Plans are soon to be prepared for a new town house on Dickerman site purchased for the purpose.

Fitzgerald, Ga.—Bonds, \$75,000, have been voted for water system and for erecting schools.

Preston, Ga.—Plans are being prepared for a new jail in Webster County, to be erected at a cost estimated at about \$5,000.—Geo. E. Thornton, Clerk of the Building Committee.

Braceville, Ill.—Architect H. Boehme, Joliet, is preparing plans for a one-story \$5,000 City Hall.

Chicago, Ill.—Architects Perkins & Hamilton are making plans for a \$50,000 refectory building for the Lincoln Park Commissioners.

Muncie, Ind.—A city building is to be constructed in the near future, a committee headed by Mayor Guthrie, having been looking over municipal edifices in other cities.

Des Moines, Ia.—Council contemplates the erection of a public abattoir; estimated cost, \$25,000.—Address Dr. Arthur B. Morse, Assistant City Physician, or Councilman MacVicar.

Logan, Ia.—The Board of Supervisors has passed resolution for new Court House, to cost about \$100,000; bonds are to be voted.

Salina, Kan.—Contracts are soon to be awarded for a new City Hall.

Topeka, Kan.—F. M. Spencer has contract for new Central Park school, to be erected here, to cost about \$41,000.

Eastport, Md.—J. H. Armstrong, Annapolis, Md., has prepared plans for new two-story school, 70x55 feet in dimensions.

Clinton, Mass.—Peabody & Stearns, architects, Exchange Building, Boston, are preparing plans for the proposed Town Hall, which is to cost about \$160,000; bids for the construction have not been asked.—James A. McQuaid, Secretary Building Committee; James H. Carr, Town Clerk.

Lynn, Mass.—The Board of Public Works has adopted plans of Edwin Earp & Son, 333 Union street, for the two-story brick court-house, to be erected at Essex and Sutton streets, at a cost of \$40,000.

Palmer, Mass.—A committee has been appointed to secure plans and specifications for new high school.—Address School Board.

Negaunee, Mich.—John D. Chubb, Chicago Opera House Block, Chicago, Ill., has pre-

pared plans for three-story school; cost, \$30,000.

Hibbing, Minn.—Contracts will be let at once for building City Hall and Fire Department buildings.

Kansas City, Mo.—The Police Board is to make an effort to secure new site for No. 2 station in West bottoms; the present station is no longer fit or safe for use.

The School Board has decided to have improvements made to the Central High School Building, to cost about \$20,000.

St. Louis, Mo.—The city has sold \$5,000,000 bonds, \$800,000 for hospitals and sites, \$130,000 for the Fire Department and \$2,000,000 for Police Headquarters building, health, criminal and court buildings.—Address Mayor.

Architect Wm. B. Ittner is preparing plans for two three-story school buildings for the Board of Education; cost, \$200,000 and \$100,000, respectively.

Clay Center, Neb.—The County Supervisors have adopted a resolution calling for special election to vote on new Court House.

Omaha, Neb.—John Latenser will be the official architect for new Court House, to cost about \$1,000,000.

Douglas County contemplates erecting a temporary brick jail; architect not selected.—D. M. Haverly, County Clerk.

Imlayson, N. J.—The citizens have voted to purchase a site and erect a new public school building and enlarging present school house; Frank W. Potter is a member of the Building Committee.

Ocean City, N. J.—A large new municipal building is planned.—Address the Mayor.

Westmont, N. J.—The citizens have voted to erect new brick school, to be brick and stone, two stories high, and cost \$25,000.

Buffalo, N. Y.—The Board of Public Works, F. G. Ward, Commissioner, rejected all bids for remodeling police station No. 1 and will soon readvertise for new bids.

Canton, N. Y.—The School Board has voted to purchase property on Court street for new high school for District No. 1, and bids for construction are soon to be advertised.

Catskill, N. Y.—Geo. B. Valkenburgh, Clerk of the Board of Supervisors, states that bids are to be received for new Court House.—Wm. J. Beardsley, Poughkeepsie, Architect.

Rochester, N. Y.—Fred Gleason has contract for remodeling and improving police station; cost estimated at nearly \$20,000.

Bellefontaine, O.—The State Building Inspector has condemned the Logan County infirmary and a bond issue election will soon be held; the sum of \$50,000 will be spent for a new infirmary.

Columbus Grove, O.—Architects Howard, Inscho & Merriam, Columbus, are preparing plans for a \$40,000 two-story, fourteen-room school building for the Board of Education.

Piqua, O.—Mills & Pruitt, McCune Building, Columbus, O., have prepared plans for new brick school, to cost \$23,000.

Sabina, O.—Plans have been prepared by Mills & Pruitt, McCune Building, Columbus, for new brick and stone high school, to cost \$40,000.

Toledo, O.—Bacon & Huber, Spitzer Building, Toledo, have prepared plans for new school to be erected in Washington Township.

Wellsville, O.—Architect A. W. Scott, East Liverpool, has prepared plans for a \$9,000 two-story fire station for the Board of Public Service.

Wyoming, O.—Plans for the erection of a new municipal building are being discussed.—Address Mayor Kirby.

Ardmore, Okla.—Mrs. Mary V. Noblack, County School Superintendent, has recommended \$150,000 bonds for the erection of 75 new schools throughout the county.

Cordell, Okla.—Washita County is to build a new Court House, to be of modern construction, 100x75 feet in dimensions, and cost about \$139,000.

Guthrie, Okla.—The people of this city voted to issue \$290,000 bonds for erecting an auditorium in which sessions of the two houses of the Legislature may be held; to build a viaduct over the Rock Island and one over the Santa Fe railroads, and for improving the sewerage system of the city.

Muskogee, Okla.—The Mayor is to call a special election to vote on \$200,000 bonds for the purchase of sites and erection of new schools.—Address School Board.

Ebensburg, Pa.—At a recent meeting the erection of a new county jail was discussed.—Address Judge O'Connor for further information.

Ford City, Pa.—Architect W. G. Eckles, New Castle, is receiving bids for a two-story high school building for the Board of Education.

Harrisburg, Pa.—The Harrisburg Public Library Association has appointed a committee to select plans for a new library building, to be erected at Front and Walnut streets; the size of the lot is 52½x210 feet. Building will cost about \$40,000; the committee is composed of Haldeman J. O'Connor, Chairman, D. Bailey Brandt and James McCormick, Jr.

South Kingston, R. I.—Plans have been prepared by Clark, Howe & Homer for a new high school, to be two stories and 116x60 feet.

Charleston, S. C.—J. P. Leithner of Wilmington, N. C., has prepared plans for new public school, to be three stories high, brick, and cost about \$42,000.—H. A. M. Smith, Chairman Building Committee.

Knoxville, Tenn.—Mayor Brooks is interested in a plan to erect a new City Hall.

Elgin, Tex.—The Elgin School District has not as yet engaged architect to prepare plans for new brick four-room school.—A. H. Carter, Secretary of the Board.

Houston, Tex.—Plans have been completed and contracts are soon to be awarded for new Court House.

Bristol, Va.—The city will erect new City Hall and Court House after plans by Stone Bros., of New Orleans.—John H. Gose, City Clerk.

Bids will be received July 20 for the purchase of \$60,000 5 per cent. 20-30-year City Hall bonds.—G. C. Fuqua, Treasurer.

Bridgeport, W. Va.—Hugh L. Dean has been appointed by Council to draw plans and specifications for a proposed new city building.

Fayetteville, W. Va.—Dillon & Grose and W. B. Jones are promoting the erection of a new Town Hall, 100x125 feet.

Wise, W. Va.—Holcombe & Lafferty, of Clarksburg, have prepared plans for new high school, to contain twelve rooms and cost \$50,000.

Milwaukee, Wis.—Bids will be received by the Board of Public Works during July for a branch public library building at Madison street and Fifth avenue, in the Eighth Ward; cost, including architect's fee, \$47,000.—Chas. J. Poetsch, Chairman.

ELECTRIC RAILWAYS

Florence, Ala.—The Sheffield Company contemplates building a street railway extension in Florence.—J. B. McCrary, General Manager.

Red Bluff, Cal.—The organization of another electric power company in Tehama County is to be consummated in the near future; valuable water rights on Mill Creek are controlled by Gorham King, T. H. Ramsey and others, and negotiations are now under way for their sale to a party of capitalists, who expect to expend over a million dollars in the construction of works to generate many thousand horse-power of electric energy; Surveyor Luning, W. A. Fish and John Gurnsey have been on Mill Creek making detailed surveys.

Denver, Col.—Wm. J. Coursin, of Pittsburg, has secured contract for the construction of an extension of the Denver and South Platte Railway, from Denver to Roxbury Park and Colorado Springs, a distance of 25 miles; it is planned to have the line ready for operation early this Summer.—T. I. Miller, Chief Engineer.

Washington, D. C.—The Baltimore & Washington Transit Company has been granted permission to build a line into the District of Columbia; the company also proposes to build an extension to Sandy Springs, Md., a distance of fourteen miles.—Wm. A. Mellen, General Manager.

Nezperce, Ida.—The construction of an electric railway from Nezperce to connect with the Northern Pacific Culeasac-Grangeville line, in the vicinity of Vollmer, is contemplated; the line will be constructed by Z. A. Johnson; estimated cost of the road, \$150,000.

Franklin, Ill.—A. L. Hamilton, Waverly, and Charles Sargent, St. Louis, Mo., have applied for a franchise to operate an electric railway along Main and Charles street.

Kokomo, Ind.—The Kokomo, Frankfort & Terre Haute Traction Company will let contracts this Summer or Fall for building an electric railway from Kokomo to Terre Haute, 104 miles, via Frankfort, Crawfordsville, Rockdale, etc. Right of way is now being secured.—Dr. A. Guard, Frankfort, President; John A. Shafer, Indianapolis, Chief Engineer; capital, \$100,000.

Cherryvale, Kan.—The Union Street Railway Company has been granted a franchise to extend its line into Cherryvale.—L. H. Siggins, Coffeyville, President.

Marquette, Mich.—The Lake Superior Construction Company will begin the construction of an interurban electric railway between Marquette and Negaunee, Mich., about July 1.—J. W. Barber, Secretary.

Oregon, Mo.—L. I. Moore, Secretary-Treasurer of the Oregon Interurban Railway Company, states that the contract to construct the electric railway from Oregon to Forest City, a distance of about 4½ miles, has been awarded to M. A. Wogan, of Kansas City, at approximately \$40,000 cost outside of equipment.

St. Louis, Mo.—Council has passed a bill granting a franchise for entrance to the city to the Hillsboro, Kimmiswick and Southwestern Railway, which proposes to build an electric railway into the city from the south.

Long Island City, N. Y.—The New York

and Queens County Railway Company, F. L. Fuller, General Manager, has been granted a franchise for the construction of two branches of its present line, extending as far as Flushing. One will extend from Broadway and Main street in Flushing to Eleventh avenue and Thirty-sixth street in White-stone; the other from Franconia avenue and Twenty-second street, Flushing, to Broadway and Bell avenue, Bay Side.

Grand Forks, N. D.—E. J. Lander, John Dinnie, W. H. Kelsey, E. S. Kent and O. A. Webster have applied for a franchise to operate a street railway system in Grand Forks.

Celina, O.—A new interurban company is being promoted between Celina and Bluffton, Ind.; it is to be called the Bluffton, Berne and Celina Traction Company and will open a new direct traffic between Celina and Bluffton; the right of way has already been secured in parts of Wells and Adams Counties.

Steubenville, O.—The Steubenville and East Liverpool Traction and Light Company finally won its contention for an additional track on Stanton boulevard, when Council at a special meeting passed the necessary ordinance granting them permission to build such additional track for a distance of 1,725 feet south from the northern limits of the city of Steubenville.

Elizabethtown, Pa.—The Florin Street Railway Company will soon begin work on a new power station; the building is to be constructed of brick, 52x33 feet.

Hastings, Pa.—The Northern Cambria Street Railway Company has decided to extend its line from Hastings to Barnesboro, a distance of four or five miles.—J. L. McNellis, Superintendent, Patton.

York, Pa.—The York Railways Company will in the near future expend \$100,000 in improving the line extending from York to Deltastown, Red Lion and Windsor.—David Young, Jr., General Manager.

Pierre, S. D.—The Aberdeen and Huron Railway Company, with headquarters at Huron, has been incorporated with a capital of \$2,500,000; the company proposes to construct an electric line from Huron to Aberdeen, a distance of 80 miles, to cross the counties of Beadle, Spink and Brown.—John A. Cleaver, R. W. Clarke, both of Huron, and others, Incorporators.

Sioux Falls, S. D.—The Brookings & Sioux Falls Electric Railway will build this year a line from Brookings, S. D., to Flandreau, 10 miles; Neill Stewart, of Brookings, is interested.

Chattanooga, Tenn.—The Chattanooga Railways Company contemplates building an extension from Main street to Rossville along Rossville avenue and private right of way.—G. E. Miller, General Superintendent.

Brownwood, Tex.—A. E. Chandler, of Granbury, has petitioned for franchise to construct and operate a street railway.

Cleburne, Tex.—Council has granted a franchise to H. M. Hyatt of Kansas City to build a street railway over streets of the city; this is part of a proposed interurban line from Waco to Fort Worth.

El Paso, Tex.—The Mesa Valley and El Paso Railway Company, with a capital of \$1,000,000, has been organized for the purpose of constructing an electric line between El Paso and Las Cruces, N. M.; the incorporators of the concern are El Paso and Las Cruces business men.

Coulee City, Wash.—James Fullerton, of Seattle, promoter of the electric railroad between this city and the Columbia River, has secured a franchise from the County Commissioners and has applied to Council for a franchise in this city.

Roslyn, Wash.—A. A. Nichols and August Sassa have recently petitioned Council for a franchise for a street railway which they expect to build between Roslyn and Clelum, Wash.

Keyser, W. Va.—The Potomac Valley Railway Company, of Piedmont, W. Va., has been granted a franchise to construct an electric street railway through the streets in Keyser.—L. S. Kirker, Piedmont, Engineer.

Wheeling, W. Va.—The Wheeling and Western Traction Company proposes to build an electric railway, which will connect Wheeling with several places in Ohio; at present it is projected to build from Uhrichsville, O., to Bridgeport or Martin's Ferry; the company has been organized with A. E. Townsend, President and General Manager; the length of the proposed line is about 40 miles.

Melrose, Wis.—The Sparta-Melrose Electric Railway and Power Company is planning to begin work on its proposed standard-gauge electric railway between Sparta and Melrose; capital, \$300,000.—Charles Newland, Melrose, President; Howard Teasdale, Sparta, Secretary; W. A. Scholes, Melrose, Treasurer.

Port Arthur, Ont., Can.—The Electric Railway Commission has been authorized to proceed with the double tracking of the Port Arthur Electric Street Railway, between Current River Park and the southern boundary of the city; this road is owned and operated by the city.

BRIDGES

Kansas City, Kan.—The Wyandotte County Board has instructed the County Engineer to prepare plans for a new 315-foot span for the east end of the James street bridge across the Kaw River in Kansas City, Kan.; this extension was ordered at the solicitation of the Kaw Valley Drainage Board, which believes it is necessary in the solution of the flood problem; the James street bridge is now 450 feet wide. The new span will make it 765 feet wide, thereby affording ample length for compliance with the proposed 734-foot channel, established by the Drainage Board.

Ypsilanti, Mich.—Council has voted to engage Benjamin Douglass, of Detroit, to prepare plans and specifications for a double arch reinforced concrete bridge over the Huron River at Race street.

Van Wert, O.—The plans prepared for the construction of a bridge over the canal at Third street have been approved; the structure will be a steel swing bridge with a driveway and separate walks.—J. S. Miller, County Surveyor.

Chickasha, Okla.—The Grady County Board will expend \$20,000 building new bridge; all the bridges will be built of steel and concrete and above high water mark, insuring them against loss by flood. All of these structures will be where there has been no bridge before, and are made necessary by the opening of the section lines in the new country.—Address County Commissioner Ed. F. Johns.

Muskogee, Okla.—Officials of the Midland Valley have decided to build a new bridge across the Canadian River; the bridge will be built near Briartown, about two and one-half miles north of the old McMurray station, and will cost \$50,000.—Address A. W. Lefebvre, Fort Smith, Ark.

Johnstown, Pa.—Each branch of Councils passed finally the ordinance authorizing the purchase or condemnation of the toll bridge of the Stonycreek Bridge Company, which connects the Eighth and Seventeenth Wards and providing for the appointment of Viewers to assess damages; the ordinance is now in the hands of Mayor Wilson for signature.

Titusville, Pa.—The City Engineer has been instructed to prepare plans and specifications for the construction of reinforced concrete bridges to replace those recently damaged.

Milwaukee, Wis.—Park Commissioners Weber and Clas have started a project to build an artistic foot bridge to join Riverside Park with Gordon place, and thus make the two one park.—Address Secretary of the Park Board.

Superior, Wis.—The city officials and the Duluth & Superior Traction Company are considering the matter of building a viaduct at Lamborn avenue.

MISCELLANEOUS

Oakland, Cal.—The Board of Works has submitted plans to the City Council for building concrete walls and wharves along north side of the estuary and west shore; estimated cost, \$25,000,000; not more than \$5,000,000 will be passed upon this year.—F. F. Jackson, Chairman of Wharves and Water Front Committee of Council.

Waterbury, Conn.—Bids will be received July 20 for the purchase of \$250,000 4 per cent. park bonds.—W. H. Sandland, City Clerk.

Pensacola, Fla.—Mayor C. C. Goodman recommends the purchase of a closed patrol wagon at a cost not to exceed \$800; also the installation of a Gamewell telephone system and the purchase of six horses, saddles and bridles for the mounted officers.

The purchase of two street sprinklers is recommended by the Mayor for the Board of Health.—John Burns, Superintendent of Streets.

Boise, Ida.—A second election will be held to decide the question of issuing \$100,000 bonds to purchase park site.—Address Councilman Carlson.

East Peoria, Ill.—At a recent meeting of city officials the question of a new garbage crematory was discussed.

Joliet, Ill.—Funds are being raised for new park; \$20,000 is already in sight for this purpose.

Terre Haute, Ind.—By instructing City Attorney Rawley to prepare an ordinance authorizing an issue of \$70,000 worth of bonds, the City Council, after a conference with other officers of the city administration, paved the way for the building of an adequate city crematory and the purchase of land for city park purposes. About \$25,000 of the money derived from the bonds will be used for the erection of a crematory and the remainder, \$45,000, will go to the purchase of parks.

Cass Lake, Minn.—The citizens have voted bonds for improvement purposes.

Rutherford, N. J.—The Borough Council is in favor of the purchase of property for a new park.

Rochester, N. Y.—A site has been secured at North street for a small park; Alderman Staud can be addressed.

Sag Harbor, N. Y.—Mrs. Russell Sage has purchased the old Driving Park Association grounds, which is to be converted into a village park for the benefit of the village.

Waterloo, N. Y.—Plans are under way for enlarging and improving the park.—Address Park Commissioner C. A. Genung.

Yonkers, N. Y.—Alderman Nugent is interested in the establishment of a new public playgrounds.

Defiance, O.—Canal improvements here this Summer will consist of two concrete locks and the completion of the concrete retaining wall; the labor will cost about \$18,000.

Newark, O.—Council has authorized the Board of Public Service to contract for the erection of a rip-rap retaining wall on the south side of Raccoon Creek, and has appropriated \$5,000 for the construction of same.

Portsmouth, O.—The County Commissioners will soon receive bids for building a stone wall along the Catholic Cemetery and Coe boulevard; the wall will be 225 feet long 8 feet high and 2 feet thick.

Springfield, O.—The Dayton Trust and Savings Company has purchased \$40,000 worth of 4 per cent. 23½-year bridge bonds at a premium of \$130; Well, Roth & Co., of Cincinnati, took the \$20,000 worth of fire engine house bonds, 4½ per cent., running 20 years, paying a premium of \$1,285.

The question of establishing a new garbage disposal plant is being discussed; Harry R. Allensworth, an engineer, is interested.

Members of the Park Board recently held a meeting to discuss a new park.

Beaver Falls, Pa.—The ordinance for a garbage plant in Beaver Falls for the use of that town and College Hill, to be paid for by both boroughs in proportion to the number of taxables, passed first reading in Council.—Dr. W. S. Cook, Chairman.

Bids were received for the building of a side wall along Walnut run at Eighth street from George McFall, Joseph Zanini, James Denhart, J. D. Moffat & Son and Joseph Muchler Bros. With the exception of the bid of Moffat & Son none were presented in proper form and all bids were rejected and referred back for new bids.

Pittsburg, Pa.—It is proposed to purchase property in the Thirty-second Ward known as Mt. Washington for park purposes.

BIDS RECEIVED

Oakland, Cal.—Council has awarded contract for improving Shafter avenue from Hudson street to College avenue to Blake & Bilger at the prices named: Grading street, including sidewalk (filling), 45 cents per cubic yard; macadamizing, surface, 8 to 6 inches thick, 7½ cents per square foot; curbing with redwood, 14 cents per lineal foot; concrete culvert, 6x30 inches, with wood top, \$3 per lineal foot; sewer (8-inch), 85 cents per lineal foot; wooden bridges, \$5 each; gutters, concrete, 15 cents per square foot; brick manholes, \$60 each; "Y" branches, 50 cents each.

J. W. Lindberg has contract for E. 19th street at the prices named: Furnishing and laying 8-inch pipe, at 92 cents per lineal foot; furnishing and laying "Y" branches at 65 cents each extra; constructing brick manhole, with cover, complete, \$38; constructing iron manhole, with cover, complete, \$125.00.

Ransome Construction Company for Campbell street at the prices named: Grading street, including sidewalk (filling), 49 cents per cubic yard; macadamizing, 6½ cents per square foot; curbing with redwood, 12 cents per lineal foot; gutters grouted (broken rock), 11 cents per square foot.

Blake & Bilger, Shafter avenue: Grading street, including sidewalk (filling), 45 cents per cubic yard; macadamizing, 7½ cents per square foot, curbing with redwood, 14 cents per lineal foot; concrete culvert, 6x30 inches, with wood top, \$3 per lineal foot; sewer, (8-inch), 85 cents per lineal foot; wooden bridges, \$5 each; gutters, concrete, 15 cents per square foot; brick manholes, \$60 each; "Y" branches, 50 cents each.—Frank R. Thompson, City Clerk.

Pueblo, Col.—Bids for the construction of an 8-inch sanitary sewer in the alleys of block 5, Holden Place, and blocks 10 and 7, Summit Place, were received by Council from four firms, the bid of Alexander Campbell being accepted as the lowest. Five bids were received for the construction of sidewalks in various parts of the city, and it was ordered that the bid of the Sunflower Paving Company, by L. & R. Ragle, be accepted, if it should prove to be the lowest, as appeared to be the case.

San Jose, Cal.—For the lighting of municipal buildings and the tower clock with gas or electricity from July 1, 1908, to July 1, 1909, the United Gas and Electric Company was the only bidder. Its proposition was as follows: Gas, \$1 per 1,000 feet; electricity, 6 cents per 1,000 watt hours. The bid was accepted.

Bids from the Gamewell company have been received for equipment as follows: Six automatic light switches, at \$65 each, \$390; one Excelsior punch register and time stand, \$475; one take-up reel, \$25; five stop clocks, at \$45 each, \$225; one electric lift for tower striker, \$375; one curfew clock, \$75; eight Excelsior gongs, at \$50 each, \$400; eight fire alarm boxes, at \$100 each, \$800; freight, \$25; total, \$2,790.

Bridgeport, Conn.—The following are items of bids reported in our columns July 1:

Burns & Co., standard block (brick), \$29 per thousand, or \$1.22 per square yard, with guarantee. Penn Clay Company, \$27.50 per thousand, \$1.17 per square yard, with guarantee, \$1.16 per square yard without guarantee.

Barber Asphalt Company (wired), \$26.25 per square thousand, large block, \$33.50; small block, without guarantee, \$1.91 per square yard, large block, \$1.77 per square yard.

Hammond Fire Brick Company, Fairmont F. B. Co., \$27 per thousand, with guarantee, 1.135½ per square yard with guarantee, 1.131½ without.

Shawmut, Shawmut shale block, \$27 per thousand with guarantee, \$1.21½ without; \$1.20 per square yard with guarantee; fire clay brick, \$28 per thousand with guarantee, \$1.26 per square yard with guarantee; \$1.25 per square yard without guarantee.

Mack Manufacturing Company, Mack repressed block, \$31.26 per thousand with guarantee, \$1.34 per square yard with guarantee; \$1.34 per square yard without. Mack \$25.01 per thousand with guarantee; \$1.50 per square yard with guarantee, \$1.50 without. Mack Wire Cut, \$22.23 per thousand, \$1.33 per square yard with guarantee, \$1.33 per square yard without.

The Silliman & Godfrey Co., Johnsbury shade block, \$31.50 per 1,000, with guarantee. Saxton slate block, \$30 per 1,000 with guarantee; Clarfield fire clay block, \$30 per 1,000 with guarantee.

Conn. Trap Rock Quarry, crushed stone \$1 per ton, f.o.b. Bridgeport.

Wheeler & Howes, Atlas cement \$1.49 per barrel, 7½-cent rebate on bags, paper \$1.24½.

G. B. Raymond Company, Bath-Portland cement, \$1.50 per barrel.

Alsen Portland cement, \$1.47½ cloth; \$1.42 paper.

Raymond Bros., South Norwalk, Portland cement, \$1.47 per barrel, with 7½-cent rebate per bag.

Pierce Manufacturing Company, cement \$1.49½ per barrel, 7½-cent rebate for cloth bags; paper, \$1.24½. Giant Portland cement same price.

Silliman & Godfrey Co., Lehigh Portland cement, \$1.55 per barrel, 7½-cent rebate for bags.

Silliman & Godfrey Co., 1,400 tons crushed, 50 cents; 700 cubic yards of sand, \$1. The General Construction Company, 1,400 tons crushed stone, \$1.20 delivered.

Unionville, Conn.—Leonard Susio and William Moses, of Meriden, have been awarded the contract by the Unionville Water Company for the construction of a concrete and earthen reservoir dam.—T. H. McKenzie, Engineer.

Wilmington, Del.—W. D. Haddock & Co. have contract for new school to be erected at 12th and Poplar streets to cost about \$30,000.

Washington, D. C.—Colburn Brothers, Washington, will lay all the cement sidewalk work in the District for the next fiscal year. Bids were opened by Daniel E. Garges, Chief Clerk of the Engineer Department, and of the five proposals received that of the Colburn Brothers was the lowest. Their bid was 95 cents a square yard for sidewalks within the city limits and \$1.18 a square yard for sidewalks outside the city limits. The other bidders and their prices were: Rudolph S. Blome, \$1.08 within the city and \$1.17 outside the city; Drew & Shehan, \$1.04—1.15; Cranford Paving Company, \$1—1.15, and R. J. Beall Construction Company, 99c—1.16. The formal awarding of this contract will not be made for several days.

Warren F. Brenizer Company has the contract at 50 cents per foot for paving about 3,000 square yards of trap rock at the sewage disposal pumping station.

Warren F. Brenizer Company has the contract for paving discharge channel of boundary sewer.

Atlanta, Ga.—The Street Committee of Council has recommended that the contract for paving with creosoted wooden blocks Forsyth and Alabama streets be awarded to Findley & White, at \$3.20 per square yard.

Savannah, Ga.—The Southern Paving Gravel Company, of Augusta, is stated to have secured the contract for furnishing 12,000 cubic yards of gravel for resurfacing roads at \$1.05 per cubic yard.

Chicago, Ill.—The King Bridge Company, Cleveland, O., was low bidder, at \$126,800, for the construction of the Erie street bridge, over the Chicago river.

The Department of Public Works awarded

the following contracts for the erection of one 10th street bridge: Substructure, Standard Construction Company, 164 Dearborn street, \$72,453; superstructure, J. G. Gallery, 119, 138 Washington street, \$93,229.

Evanston, Ill.—Edward A. Barker & Son have the contract, at \$1,640, for the construction of a cast iron water main in Milburn street, from Sheridan road to Ridge avenue.—Joseph E. Paden, Chairman Board of Local Improvements.

Forest Park, Ill.—The Jennett Bridge and Iron Company, 3541 Shields avenue, Chicago, was awarded the contract for a bridge, at Forest Park, for the Forest Home Cemetery Company.—Engineers Westcott & Ronneberg, 188 Madison street, Chicago, made the plans.

Melrose Park, Ill.—The Empire Construction Company, room 1221, 164 Dearborn street, Chicago, have been awarded the contract, at \$43,000, for a concrete sewer for the Department of Local Improvements.—C. J. Wolff, President.

Rock Island, Ill.—The contract for constructing the 10-inch sewer in the alley between Second and Third avenues and Tenth and Eleventh streets has been awarded by the Board of Local Improvements to P. E. Trenkenschub.

Springfield, Ill.—The Board of Local Improvements has awarded the contract to Richard Egan for laying a sewer in Ninth street, from South Grand avenue to Laurel street, and in Canedy street, from Henrietta to Fasshield streets; the sewer is to be 18-inch vitrified pipe.

Taylorville, Ill.—The Mercantile Bridge and Concrete Tile Company, Paris, Ill., have been awarded contract for 14,341 square yards 4½-inch brick on 6-inch concrete foundation, asphalt filler, at \$1.56 for setting; also 10,550 lineal feet concrete combined curb and gutter, making a total of \$27,201.04; Barbree & Harmon, Taylorville, bid \$31,313.41, and Samuel Anderson, Taylorville, \$32,714.23.

The Board of Local Improvements let contract for the Shawnee street sewer to the Hamilton Bros. Construction Company, 4233 Wabash avenue, Chicago, at \$13,963.—A. T. Kinney, President; J. W. Dappert, City Engineer.

Waukegan, Ill.—William Davidson, Wilmette, was awarded the contract, at \$1,280.90, for constructing a 6-inch cast iron water supply pipe in Fulton avenue. Also the contract, at \$1,751.50, for the construction of a storm water sewer, with manholes, catch basins, etc., in Washington street.—W. S. Bullock, Chairman Board of Local Improvements.

Fort Wayne, Ind.—The following bids were received by the Board of Public Works for waterproofing the city reservoir: The United States Waterproofing Company, New York, \$5,866 for ½-inch thickness; \$8,604 for ¾-inch; \$10,551 for 1-inch, with a five-year guarantee. O. F. Menefee, Fort Wayne, \$2,295 for 1-inch thickness of plaster coat, with five-year guarantee; two coats of R. I. W. waterproofing, \$1,850, with three-year guarantee. Barber Asphalt Company, Chicago, \$1,687 for two asphalt coats, guaranteed to stop seepage. Metropolitan Engineering and Construction Company, Chicago, \$3,915 for waterproofing, burial and finishing coats, with a guarantee of five years and specification to complete work in fifteen days. Wayne General Construction Company, Fort Wayne, \$5,794 for Hydrex membrane waterproofing, with guarantee of five years, and specification to waterproof about the top of the basin for 14½ cents a square foot. Dan M. Beers, the company's engineer, specified that he would have an expert Hydrex engineer to superintend the work and would complete it in three weeks. E. J. Winslow, Chicago, Ill., \$9,362 for hydrolytic coating.

Hammond, Ind.—The Board of Public Works, Otto H. Duclke, City Clerk, let general contract to Charles Speichert, of this place, for a 2-story press brick and stone fire station, 48x87 feet, to be erected in rear of City Hall, \$13,500.

Michigan City, Ind.—Fred C. Miller, secretary Lake Michigan Water Company, states that the contract for furnishing material and constructing a submerged intake curb and laying a 30-inch intake pipe (bids opened June 5), has been awarded to M. H. McGovern Company, at about \$50,000; lock bar steel pipe is to be used.

Muncie, Ind.—On the return to this city of Mayor Guthrie and Frank Lafferty, a member of the Board of Works, the board awarded contracts for cement curbs and gutters on Powers and Clerk streets to William Birch at 58 cents a lineal foot. The Powers street improvement is to extend from Council street to Kilgore avenue and the Clerk street curb and gutter will be from Grant street to Blaine street on both sides of both streets.

South Bend, Ind.—Barber Asphalt Paving Company has secured contract for asphalt pavement on W. Washington street, about 28,000 square yards, for \$43,500.—A. J. Hammond, City Engineer.

Council Bluffs, Ia.—Pottawattamie County, W. C. Cheyne, County Auditor, let contract

to W. M. Lane, Harlan, Ia., for the construction of bridges for the county.

Wickham Bros., 21 Scot street, were low bidders, at \$631,000, for water works for this city, after plans prepared by City Engineer S. L. Etnyre.

Sioux City, Ia.—Council has awarded the contract for paving Douglas street and West Fourth street to M. L. Flinn, of Sioux City, at \$1.64 and \$2.22 per square yard, respectively, and to Bryant, Ford & McLaughlin Company, of Waterloo, for paving Pierce street, at \$1.44 per square yard.

Contracts for about \$4,000 of improvements have been awarded; the Lytle Construction Company secured the one for the three-span steel bridge at Thirty-sixth and Water streets, the bid being \$1,400. Haakinson & Beatty bid \$1,450 and Woodbury Sanborn \$1,697. Woodbury Sanborn secured the contract for a culvert on Sergeant Bluff, near Thompson's grove, for \$12.07 per lineal foot, and one on the Correctionville road for \$12.47, the other bid being \$17.50 for each culvert.

Coffeyville, Kan.—The McGuire & Stanton Construction Company was awarded the contract for the construction of the sewer system here at \$82,000; they were the lowest bidders among twelve competitors, and will begin the work as soon as it is possible to transport machinery and material; fourteen miles of sewer are to be constructed.

Topeka, Kan.—The new Martin-Dennis sewer will be built for \$64,449.64, or about \$9,750 less than the engineer's estimate. John Maxwell of Topeka is the successful contractor.

On the big sewer the bidders were W. W. Cook & Sons, Junction City; W. C. Mullins, Kansas City; Haskins & Ramsey, Topeka, and John Maxwell, Topeka.

The new sewer will be built of concrete through the main portion with a 24-inch tile pipe connection running across the fair grounds to Topeka avenue where the sewer will connect with the Fifth Ward sewer. Bids were asked for both brick and concrete, but the bids for the latter sort of construction were lower and won out. The bids were:

John Maxwell, brick sewer, \$72,417.34—the same with 24-inch pipe instead of 30-inch concrete, \$69,512.74—concrete sewer with 30-inch concrete connection, \$64,635.04—with 24-inch tile pipe, \$64,449.64.

Haskins & Ramsey's bid was the second best. They offered to do the work for \$73,208.85 for a concrete sewer with a 24-inch tile pipe extension, and \$75,980.85 for concrete sewer with 30-inch concrete extension.

W. W. Cook & Sons were the next lowest bidders. Their bid was: Concrete sewer with 24-inch tile pipe, \$74,808.78; the same with 30-inch concrete extension, \$77,754.58. They did not bid on a brick sewer construction.

W. C. Mullins was the highest. He bid \$83,276.28 for the brick sewer with 24-inch tile extension and \$83,482.28 for 30-inch concrete; for the concrete sewer, \$86,147.78 with 30-inch concrete extension and \$85,323.78 for 24-inch tile pipe.

With few exceptions Maxwell was below every item contained in the engineer's estimate.

The specifications call for the laying of 11,377 feet of 8-inch tile pipe, 3,190 feet of 10-inch, 3,725 feet of 12-inch, 230 feet of 15-inch, 1,500 feet of 18-inch, 2,190 feet of 21-inch, and 2,060 feet of 24-inch. Maxwell will get from 67 cents to \$1.85 per lineal foot for the above. It is also specified that 2,060 feet of 2-rung brick 30-inch sewer shall be laid, 1,020 feet of 36-inch, 550 feet of 42-inch, 380 feet of 48-inch, 550 feet of 54-inch, and 2,300 feet of 60-inch. Maxwell's price on this runs from \$3.26 to \$5.80 per lineal foot. In addition 2,300 feet of iron pipe, 11 flush tanks, 8 curb catch basins and 9 catch basins, 61 manholes and 17 inlets must be provided for.

Maxwell will get 5,240 cubic yards of loose rock excavation at 65 cents per yard, 4,500 solid rock excavation at \$2.75, concrete at \$8 per cubic yard, 2,060 feet of 30-inch reinforced concrete at \$1.94, 1,020 feet of 36-inch at \$2.48, 550 feet of 42-inch at \$3.04, 380 feet of 48-inch at \$3.50, 550 feet of 54-inch at \$4.80, and 2,500 feet of 60-inch at \$5.04.

The engineer's estimate for the concrete sewer using the 24-inch pipe extension was \$74,200.74 and \$77,039.12 for the brick sewer.

The total value of the property liable for the improvement has been appraised.

Louisville, Ky.—In the presence of about fifty interested contractors, engineers and city officials seven sealed and itemized bids for the contract for constructing Section A of the Twenty-fifth street sewer were opened by the Commissioners of Sewerage at their offices in the Equitable building; the bidders were Paul & Kershner, Dayton, O.; L. R. Figg, Louisville; Clarke, Coupe & Gray, Louisville; Hines Brothers, Canal Dover, O.; Scholtz & Vogt, Louisville; M. O'Herron & Co., Pittsburg, Pa., and Henry Bickel Com-

pany, Louisville. Section A of the Twenty-fifth street sewer is about 3,800 feet long, extending from Griffith avenue and Twenty-fifth street to the river near High avenue and Twenty-sixth street. Bids will be opened by the Commissioners on July 17 for the construction of Section B of the Twenty-fifth street sewer.

Baltimore, Md.—Close competition marked the bids opened by the Board of Awards for the paving with bituminous macadam—a material to be tried here for the first time—of Twenty-fourth street. William M. Elder, who proposed the use of this material in place of bitulithic, which, it is said, it greatly resembles, for the reason of its smaller cost, bid \$1.95 a square yard on a concrete base and \$1.75 a square yard on a bituminous base. The General Paving and Contracting Company's prices were \$1.94 and \$1.74 respectively. As usual, protests were filed against the awarding of the contract for this work on the ground that there was a conflict in the specifications.

Adams, Mass.—Field, Barker & Underwood, Philadelphia, Pa., have been awarded contract by the Board of Selectmen for 6,900 square yards Mack block on 6-inch gravel concrete foundation, at \$2.45; the bids received follow: Leh Construction Company, Springfield; Mack brick, \$2.82; Johnsonburg, \$2.82; Shawmut, \$2.77. J. McCort & Co., Boston; Mack, \$2.79; Johnsonburg, \$2.84; Shawmut, \$2.79; Metropolitan, \$2.95. George Hofflick & Co., North Adams; Johnsonburg, gravel concrete, \$2.47; Shawmut, gravel concrete, \$2.61; Park brick, gravel concrete, \$2.66; Johnsonburg, crushed stone, \$2.58; Shawmut, crushed stone, \$2.72; Park, crushed stone, \$2.71. Sylvester Conlet & Diamond, Boston; Mack brick, \$2.87. Field, Barker & Underwood, Philadelphia; Mack, \$2.45; Shawmut, \$2.55; Patten pavers, \$2.41; Clearfield, \$2.49; Pennsylvania clay, \$2.51. R. W. Sherman, Utica, N. Y.; Mack brick, \$2.75; wood blocks, creosote and oil, \$3.37; wood block, all oil, \$3.25; asphalt, \$3.23. Dollar & Holler, Albany, N. Y.; Mack brick, \$2.47; Patten pavers, \$2.47; Clearfield, \$2.47. H. C. Wood & Co., Westfield; Mack, \$2.72; Shawmut, \$2.65; Pennsylvania clay, \$2.65; Shawmut shale, \$2.65. United States Wood Preserving Company, New York City; Three-inch wood blocks, \$3.15; 3½-inch wood blocks, \$3.35.

Salem, Mass.—The Essex County Commissioners have awarded these contracts for the new Registry of Deeds building, to be built here: Wood furniture, to Smith, Adams & Gibbs, of Boston, the lowest bidders, at \$3,316.08; judge's bench to the Library Bureau at \$600; shades to Almy, Bigelow & Washburn Company of Salem for \$350; English linoleums to John H. Pray & Sons Company of Boston for \$3,751.40. All bids for electric elevator were rejected, and the commissioners will readvertise this item. The matter of contracts for metallic furniture and for the Vacuum Dust Remover was held in abeyance for further consideration.

Bay City, Mich.—Council has awarded the following paving contracts: Fifth avenue, from alley between Jefferson and Madison, to Johnson street, sheet asphalt, five-year guarantee, J. F. Hill, Chicago, \$24,245.90; Fifth avenue, brick, W. J. Meagher & Co., city, \$6,336.46; Belinda street, brick, W. J. Meagher & Co., \$1,401.60; sundry streets, brick, P. Ryan & Son, city, \$28,000; Van Buren street, brick, W. J. Meagher & Co., \$16,907.

Charlotte, Mich.—Kneal & Ryan, Lansing, Mich., have the street paving contracts for the year, at \$8,280.40.

Grand Rapids, Mich.—Seventeen bids have been received for the 12,000-gallon pumping engine, as follows: Bethlehem Steel Company, according to specifications, \$114,100; Bethlehem Steel Company, alternate A, \$132,300; Bethlehem Steel Company, alternate B, \$110,400; Wisconsin Engine Company, according to specifications, \$73,700; Wisconsin Engine Company, alternate A, \$68,800; William Todd Company, according to specifications, \$72,000; William Todd Company, alternate B, \$69,150; Holly Manufacturing Company, according to specifications, \$89,700; Hooven Owens Rensselaer Company, (1) \$92,000, (2) \$95,000, (3) \$90,000, (4) \$93,000; Wilson, Snyder Manufacturing Company, \$65,000; R. D. Wood & Co., \$67,000; Platt Iron Works, \$64,000; Allis-Chalmers Company, according to specifications, \$67,500; Allis-Chalmers Company, alternate A, \$65,000.

The contract for laying the sidewalks and constructing an apron besides painting the steel work of the Ann street bridge was awarded to C. E. Williams for \$1,500.20. He was also given the contract for constructing the Valley avenue sewer, to cost \$390, and to lay the California street sewer, to cost \$255. His bid on the Ann street work is \$300 below the estimate as rendered by the City Engineer.

The contract for the construction of the Indiana street sewer was awarded to P. DeWitt for \$245.70.

Salt Lake City, Utah.—Council has approved of the contract of Davis & Heuser for sewer extension No. 186; the district is on the north bench and is bounded by Third and Sixth avenues and A street and the reservation; the price is \$1.65 a foot and the entire cost of the work will be \$54,000; a week previous Council refused to approve the contract by a tie vote.

Rutland, Vt.—Architects Jackson & Brown, New York City, let general contract to the Bliss & Griffiths Construction Company, New York City, for a two and three story addition to high school building for the Board of Education; cost \$35,000.

Two Rivers, Wis.—Walter O. Bahr has been awarded contract for laying 1,070 feet 4-inch pipe in 6 to 8 foot trench at 27½ cents, total \$294.25, the city furnishing the pipe, wages of common labor, \$2 per day.—J. G. Welpe, Secretary, Water and Light Commission.

Iron Mountain, Mich.—The contract for the construction of a 138-foot span steel bridge, with concrete abutments, was let to the Wisconsin Bridge and Iron Company, Milwaukee, Wis.—G. V. Carpenter, Engineer, Dickinson County.

Clarksdale, Miss.—J. H. Johnson, Chairman Board of Aldermen, states that the contract for constructing about five miles of sidewalks (bids opened June 16) has been awarded to the Delta Construction Company of Memphis, Tenn., at \$27,324.

Gulfport, Miss.—J. W. Gurley & Co., Mobile, Ala., were awarded the contract, at \$15,836.90, for constructing storm water sewers.

Graves-Matthews Shale Brick Company, Birmingham, Ala., was awarded the contract, at \$122,536.45, for street paving at Gulfport.—N. D. Goodwin, City Clerk; M. F. Sullivan, City Engineer.

Columbia, Mo.—H. H. Tandy was awarded the contract, at \$7,976.25, for paving with brick Price avenue.—John S. Bicknell, City Clerk.

Lincoln, Neb.—City Engineer William Grant, City Hall, let contract to the Metropolitan Engineering and Construction Company, Kansas City, Mo., for 10,000 yards of "Sarco" paving, at \$1.90 per yard.

Jackson, Miss.—John Houchin has the contract, at \$2,998, for paving.

Omaha, Neb.—City Engineer Victor Rosewater let contract to the Offerman Heating, Plumbing and Construction Company for a concrete sewer; \$20,000.—Dan. Butler, City Clerk.

South Omaha, Neb.—City Engineer Geo. W. Roberts let contract to the National Construction Company for 2½ miles of brick paving and curbing.

City Engineer Geo. W. Roberts has let contract to the National Construction Company for a concrete sewer, to cost \$165,000; also let contract to Hannon & Craig, Brandeis Building, Omaha, for a concrete sewer, to cost \$40,000.

Exeter, N. H.—The following bids have been opened for constructing sewers in High, Park, Winter and Washington streets, the city to furnish the pipe: Osgood Construction Company, Nashua, N. H., \$9,124; P. Arthur McIntyre, Milton, Mass., \$6,390; Hanscom Construction Company, Boston, Mass., \$6,212; Abbe & Bowes, Cohoes, N. Y., \$5,376 (awarded contract).

Camden, N. J.—The Fire Committee of Council has awarded its annual contracts. The contract for furnishing coal was given to Richard McAllister at \$5.74 per ton. J. H. Carroll was awarded the contract for horses at \$275 each; Eureka Hose Company, fire hose at \$1 per foot; Gamewell Fire Alarm Company, for furnishing fire alarm boxes at \$125 each; Ashton Fidler, hay and straw; Frank Lee Dickinson, feed; N. Snellenburg, sheets and pillow cases.

Elizabeth, N. J.—The following bids were received by Council for paving a portion of Fulton street: J. J. Potts, \$19,618; Jacob Jacques, \$18,355; Samuel Sampson, \$18,416; Patrick Faughnan, \$18,339, and Michael De Rosa, \$18,420, and for North avenue, Wm. C. Shanley, \$11,916, and Patrick Faughnan, \$11,829.

Jersey City, N. J.—Contract for laying wood block paving in Second street has been awarded to the United States Wood Preserving Company at its bid of \$3.24 per yard for block pavement; 25 cents per lineal foot for resetting old curbs, 80 cents per lineal foot for setting new curbs, 65 cents per lineal foot for setting curb curbing, and 40 cents per cubic yard for filling.

Newark, N. J.—Bids for street improvements were opened and contracts awarded as follows: Grading, curbing and flagging of East Kinney street, from Van Buren street to Elm road, to Alexander J. Milmo, \$2,725.40; grading, curbing and flagging of Custer avenue, from Seymour avenue to Peshine avenue, and of Renner avenue, from Osborne terrace to Clinton place, to William Ballard, \$5,315 and \$6,281, respectively; grading, curbing and flagging of North Sixth

street, from Bloomfield avenue to Heller Parkway, Philip & Peter Jannarone, \$15,455; grading, curbing and flagging of South Sixteenth street, from Madison avenue to Sixteenth avenue, Maher & McNicholas, \$15,154.05.

The contract for relaying old and furnishing new flagstones and resetting curbs for a period of one year was awarded to Anthony F. Gerber, at \$9,150.

Summit, N. J.—Joseph Valente & Co., Valley street, Orange, has been awarded the contract by the city for the construction of the extension to the South Side storm sewer at \$13,068.—William S. Logan, City Engineer.

Albany, N. Y.—The Board of Contract and Supply awarded the following contracts for sewers: Sewer in Hamilton and Grand streets, J. M. Holler, Albany, \$1,880.15; sewer in Livingston avenue, John Doyle, \$588; sewer in Leonard and Liebel streets, J. M. Holler, \$1,825.

The Board awarded the following contracts for paving: Paving Plum street, from Dalius to Franklin street, M. F. Dollard, Albany, \$6,995.95; paving Cuyler street, from Elizabeth to Sloan street, Mulderry Bros., Albany, \$4,720.95.

Binghamton, N. Y.—The following are the bids submitted to the Board of Contract and Supply for street lighting, prices given being per lamp per year, for one, two and three years, respectively: Welsbach Street Lighting Company of America, gas lamp, \$28, \$27.50 and \$27; naphtha lamp, \$31, \$30.50 and \$30. Binghamton Light, Heat and Power Company, electric arc lamps, \$84 for one, two or three years for 400 lamps per year, all lamps in excess \$80 per lamp per year for each lamp above 400; incandescent street lamps, \$21.50 for one, two or three years, for 500 lamps, over 500 to be \$21 per lamp per year for each lamp above 500; a three-year contract for both electric arc and electric incandescent street lighting, providing for at least 420 enclosed arc and 480 electric incandescent street lamps, at \$80, \$75 and \$70 for arc lamps, and \$20 per year for electric incandescent street lamps. The company also bid for lighting the City Hall and public buildings with 4, 8, 16 and 32 c. p. multiple lamps at 6 cents per kw. hour.

Buffalo, N. Y.—The Grade Crossing Commissioners, 436 Ellicott Square Building, awarded contract to J. W. Dwyer & Son, 875 Ellicott Square Building, for sewer work on Parkside avenue, at \$12,832.

Dunkirk, N. Y.—At a meeting of Mayor Einstein, City Engineer Morrissey and the Street Committee of the Common Council, the contract for four electric arches was let to F. F. Schneitzler & Son of Mansfield, O., at a little over \$900. The arches, the purpose of which is municipal advertising, are to be erected at the earliest possible time.

Council has awarded contracts for paving as follows: Dove street, with Trinidad Pitch Pike asphalt to R. C. Ruthven, of Buffalo, at \$4.20 per linear foot, and for paving with Jamestown block Ruggles street to Goggin & Schultz, of Fredonia, at \$3.44 per linear foot.

Ft. Niagara, N. Y.—E. J. Servis, Youngstown, N. Y., has the general contract, at \$13,000, for enlarging the military rifle range, from 300 to 700 feet in width, for the post exchange, at Ft. Niagara.

Little Falls, N. Y.—Bids for paving East Main street were opened by the Board of Public Works on June 19. They were as follows: Warren Bros., bitulithic, \$2.75 per square yard, bituminous foundation, or \$2.85 for concrete base; curbing, 94 cents per foot and \$1.14 for curbed paving; Josiah Winant, of Little Falls, for asphalt, Barber block, \$2.56; Hastings block, \$2.73; curbing, 90 cents and \$1.28.

Brooklyn, N. Y.—The contract for regulating, grading and paving or repaving with asphalt on concrete foundation the traffic road of Ocean Parkway, between Park Circle and Eighteenth avenue, Brooklyn Borough, has been awarded to the Brooklyn Alcatraz Asphalt Company, of Brooklyn, at the following bid: Asphalt pavement, including 21,120 square yards binder course, \$1.25; 3,017 cubic yards concrete, \$6; 13,400 linear feet new curb, furnished and set, 98 cents; 1,167 linear feet old bluestone curb, redressed, re-jointed and reset, 40 cents; 45 noiseless covers and heads complete for sewer manholes, furnished and set, \$18; 7,039 cubic yards earth excavation, 60 cents; total, \$63,134; totals of other bids: Barber Asphalt Paving Company, New York City, \$71,300, and Cranford Company, 52 Ninth street, Brooklyn, \$72,144.

Bids were opened by the Park Board, New York City, for furnishing all labor and materials necessary to pave with asphalt tile walks in Prospect Park, Borough of Brooklyn, together with all the work incidental thereto, about 330,000 square feet; (a) price per foot, (b) total: Barber Asphalt Paving Company, New York City, (a) 26 cents, (b) \$85,800; Continental Asphalt Paving Company, 42 Broadway, New York City, (a) 25 cents, (b) \$84,975; Hastings Pavement Com-

pany, New York City, (a) 25½ cents, (b) \$83,325 (awarded contract).

The Hastings Pavement Company, 25 Broad street, New York City, has secured the contract for regulating, grading and paving or repaving with asphalt on a concrete foundation roadway of Prospect Park Plaza, between Soldiers and Sailors' Arch and Prospect Park, Borough of Brooklyn, at the following bid: 10,425 square yards asphalt block pavement, including mortar top, \$1.95; 500 square yards old stone pavement, 40 cents; 1,463 cubic yards concrete, \$5.85; 500 linear feet new curb, 88 cents; 1,760 linear feet old bluestone curb, 40 cents, and 2,613 cubic yards earth excavation, 1 cent; total, \$30,307. The Barber Asphalt Company, New York City, also bid for this work, \$33,439.

New York City, N. Y.—The Turner Construction Company, 11 Broadway, has the contract for constructing all the reinforced concrete stairs on the Manhattan approach of the Blackwells Island bridge.

Rochester, N. Y.—The Board of Contract and Supply, F. X. Pifer, Secretary, awarded the following contracts for paving Hawley street: Brick paving, F. C. Lauer & Sons Company, 458 Clinton avenue, \$24,162; Huntington street, asphalt paving, Whitmore, Rauber & Vicinus, 279 South avenue, \$6,064.

Brayer & Albaugh were awarded the contract for paving Plymouth avenue, between Mait and Allen streets, by the Board of Contract and Supply, at \$19,948 for any kind of brick, including Metropolitan special.

Schenectady, N. Y.—John McDermott, city, has been awarded contract for constructing eight-room school on Willett street, bidding \$29,500 on Proposal No. 1 and \$29,663 on No. 2: Auker & Comeau bid \$29,600 and \$29,750; Kibben & McGinniss, \$29,795 and \$29,965; and Hanrahan Brothers, \$29,888 and \$35,042.—Henry F. Miller, Secretary, Board of Contract and Supply.

Syracuse, N. Y.—Sidewalk construction prices took a tumble as recorded by the numerous bids received by the Board of Contract and Supply: 9½ cents a square foot was the bid submitted by two contractors, Charles Whitney and James Barr, for the construction of a cement walk on both sides of Colvin street, from Onondaga Creek to Columbia avenue. The contract contained about 23,900 square feet, the bids of Mr. Whitney and Mr. Barr amounting to \$2,270.50. Owing to the tie bid, no contract was awarded. Although the 9½-cent rate was frequently bid last season, the increased cost of cement this year has kept the price of sidewalk construction considerably above 10 cents until the present. Other bidders for the Colvin street job were as follows: Salt City Paving Company, \$2,626.61; E. C. Invean, \$2,569.50; J. M. Hill, \$2,820.20; James Swift, \$2,748.50; Artificial Paving Company, \$2,425.85; Albert Gaffey, \$2,375.66, and C. T. Hookway, \$2,437.80.

James Barr was awarded a contract for building a walk on both sides of Orange street, from Washington street to the Erie canal at 10 cents a square foot, his bid being \$110. C. T. Hookway bid \$128.40, James Swift bid \$137.50, W. H. Cross bid \$121 and J. M. Hill bid \$129.50.

For building a walk on the east side of Lancaster avenue, from Euclid avenue to Broad street, C. T. Hookway was the low bidder at \$1,310. The Artificial Paving Company asked \$1,415, Albert Gaffey bid \$1,540, J. M. Hill bid \$1,521 and James Swift asked \$1,550.

The construction of a walk on the west side of Lancaster avenue, from Euclid avenue to Clarke street, was also awarded to Mr. Hookway at \$174.40, as was another on the west side of Mather street, from Burnet avenue to Hawley avenue, for \$497.30. Still another contract was carried off by Mr. Hookway, this covering the building of a walk on the north side of Burnet avenue, from Elm street to Vine street, the price being \$457.80.

Once again the Board of Contract and Supply has rejected all bids for the city's garbage disposal contract sent in. This was the fourth rejection made by the board in a few weeks for one cause or another. There were but two bidders submitting proposals, these being the Syracuse Manufacturing and Reduction Company, whose ten-year contract with the city expires within a few days, and who have bid regularly each time, and Henry Sayers, of St. Louis, Mo., a new bidder. On each of the twelve propositions for which bids were submitted the Syracuse company was lower than its competitor, but as the low bids were higher than the low bids received upon the three former occasions when proposals were received, all were rejected on the ground that the prices were excessive. The failure of the Municipal Contracting Company to submit a proposal, although it has made a valiant fight for the contract, was the sensation of the day, creating considerable speculation at the City Hall. The proposals were as follows: For the reduction of the city's garbage for a period of five years, the contractor to retain

ownership of the plant at the expiration of the contract, Syracuse Manufacturing and Reduction Company (a) \$80,000, Henry Sayers (b) \$85,000; same proposition for six-year period, (a) \$94,500, (b) \$100,500; same proposition for seven-year period, (a) \$108,500, (b) \$115,500; same proposition for eight-year period, (a) \$122,000, (b) \$130,000; same proposition for nine-year period, (a) \$135,000, (b) \$144,000; same proposition for ten-year period, (a) \$147,500, (b) \$157,500; for the reduction of the city's garbage for a period of five years, the city to assume ownership of the plant without cost at the expiration of the contract period, (a) \$105,000, (b) \$125,000; same proposition for six-year period, (a) \$119,520, (b) \$140,500; same proposition for seven-year period, (a) \$133,525, (b) \$155,300; same proposition for eight-year period, (a) \$149,000, (b) \$170,000; same proposition for nine-year period, (a) \$160,002, (b) \$184,000; same proposition for ten-year period, (a) \$172,500, (b) \$197,500. The proposal submitted by the Syracuse company contained practically a direct repetition of its bid of a week ago, this being based upon a charge of \$16,000 a year for the reduction alone, or \$10,000 less per annum than it received upon its expiring contract.

Utica, N. Y.—The contract for constructing a sewer in Barnes avenue was awarded by the Board of Contract and Supply to F. M. Johnston, the only bidder, at \$8,656; this was somewhat in excess of the Engineer's estimate, but it was thought best to have the work proceed at once.

Wilmington, N. C.—The city has just placed contract for the purchase of a modern fire steamer of the first size with the Knott Fire Engine Company of Minneapolis, Minn.; also to the same firm contract for rebuilding one of the old Button engines, which, when repaired and returned, will equal one of the new engines of third size.—W. A. French, Jr., Chairman Fire Commission.

Bottineau, N. D.—Contract for road work was let to W. H. Schmidt.—Iver M. Brandjord, County Auditor.

Barberton, O.—Council has opened bids as follows June 15 for paving South Second street; James Wildes, of Akron, \$30,872; Paul & Henry, of Barberton, \$28,715 (awarded contract), and Doll & Linn, \$34,493.

Cadiz, O.—C. S. Lambie & Co., Pittsburg, Pa., have been rewarded contract for 10,427 square yards of brick paving on 8-inch crushed stone foundation and 2-inch sand, for \$21,025; Lefevre & Edwards, Cumberland, Md., bid \$25,570; George B. Clifford, Martins Ferry, \$22,141, and Rosser & Maloney, Bell-air, \$21,257.—W. H. Lucas, Clerk, Board of Public Service.

Canton, O.—The contract for erecting a steam heating system in Canton High School was awarded to Jonas A. Mills, \$2,731.38; other bids were: Fife Bros., \$3,237; Chapman Plumbing and Supply Company, \$2,749; A. C. Eynon Plumbing Company, \$2,890; all from Canton; no outside bids received.—W. C. Lane, Clerk.

Columbus, O.—Only one bid was received by the Board of Public Service for the erection of the proposed garbage disposal plant, and that far exceeded the amount appropriated for the purpose. The American Extracting Company of Providence, R. I., submitted two estimates, one for \$248,750 and a second for \$219,137. Only \$150,000 of the \$290,000 bond issue made for the plant is at the disposal of the Service Board, so they are as badly at sea as before the bid was received. The estimates were referred to City Engineer Maetzel. This is the third time bids have been advertised for and the first that any have been submitted. Several propositions have been made to the Board, but in order to award the contract the bidders must conform with the specifications. These will have to be cut down.

At a special meeting five bids on the Sullivan avenue sewer were received and referred to the City Engineer.

The Board of Public Service has awarded to C. T. McCracken & Co. the contract for building the Sullivan avenue main sanitary sewer, at the firm's bid of about \$35,000; the contract calls for concrete construction. The Board also awarded to C. H. Walcutt contract for paving with brick Beck street, between Third and Ninth streets, and Cherry street, between High and Second.

State contracts to the amount of \$530,000 have been awarded, of which \$350,000 is for cottages, mechanical equipment, employees' building, power house and laundry for the State Tuberculosis Hospital at Mt. Vernon, and the remaining \$280,000 for the improvement of the Ohio and Miami and Erie canals, in accordance with appropriations made by the General Assembly. The bidding, for the most part, on the various improvements, was reasonably close, but there was a notable exception in the bids for the construction of the Middletown dam. One seeker after this work wanted \$110,000 for doing the job, while the contract was awarded to another at \$38,324.68, a difference of

\$72,000. The list of successful bidders and the contracts follow: Kinnear Bros., Columbus, Tuscarawas dam, \$1,483; William H. Vogt & Sons, Massillon, two locks at Massillon, \$483; same, high-water spillway, between Navarra and Boliver, \$54; same, sluice and sewer at Lockport, \$2,019; Standard Construction Company, of Cleveland, constructing a pile and timber bulkhead along Cuyahoga River and Ohio Canal in Cleveland, \$22,150; Daley Bros., Boliver, culvert, near Zoar, \$2,270; same, Zoar dam and regulator, \$6,083.40; same, Hilton feeder dam, \$1,247.40; S. W. Parshall, Akron, locks 12 and 13, at St. Mary's, \$10,270.30; Schneider Bros., Defiance, locks 35 and 38, at Defiance, \$9,390.90; same, locks 41 and 42, at Grand Rapids, \$7,396.10; Kinnear Bros., Columbus, locks 45 and 46, at Toledo, \$8,239.70; same, locks 47, 48 and 49, at Toledo, \$11,373.10; same, locks 50, 51 and 52, at Toledo, \$9,364.50; Watson Bros., Minerva, Lewistown, waste water bulkhead, \$17,092; Garver Contracting Company, Hamilton-Middletown dam, \$38,879; C. H. Jones, Lebanon, lower Lockland water gates, \$477.50; Caps & Brehm, Hamilton, sluice gates and waste gates south of Franklin, and sluice gate at Lesourdsville, \$3,328.68.—Chas. E. Perkins, Chief Engineer Public Works.

Dayton, O.—With the exception of power equipment, the County Commissioners have awarded contracts for the new County Infirmary building. Following are the contracts awarded: Cut stone work, L. H. Webber, \$1,195; galvanized iron work, G. W. Nicholas, \$3,487; brick work, Bowman & Shank, \$6,696; painting, Rhoades & Koerner, \$2,170; plastering, O. K. Musselman, \$5,100; plumbing, M. J. Gibbons, \$5,164; iron and steel work, C. H. Lyons, \$2,527.54; concrete and cement work, John Kirshner, \$590; carpenter work, Dayton Lumber Manufacturing Company, \$19,694; tile work, Architectural Building Material Company, \$757; ice machine, United States Automatic Ice Machine Company, \$2,525; cooling box, McCray Refrigerating Company, \$980.

Delaware, O.—Contract for paving Lincoln avenue, Sections 1 and 2, was let to E. A. Freshwater & Sons.—Geo. S. Irwin, City Engineer.

Elyria, O.—The Lorain County Commissioners awarded contract to C. H. Buttender for constructing a concrete bridge, known as Garfield bridge, in Sheffield Township, at his bid of \$2,092.50.

Malta, O.—W. J. Scholl Company, Youngstown, were awarded the contract for constructing a water works system for Malta.—Paul R. Murray, Engineer, New Philadelphia.

Toledo, O.—Architect George B. Rheinfrank let contracts for a two-story engine house for the Board of Public Safety; cost, \$20,000.

Youngstown, O.—M. J. Joyce, city, received the contract for laying stone sidewalks.—W. H. McMillin, Clerk Board of Public Service.

Edmond, Okla.—Contract for constructing the water tower was let to the Chicago Bridge and Iron Works.—J. L. Robinson, Mayor; O'Neill Engineering Company, Engineer, Dallas, Tex.

Guthrie, Okla.—The Illinois Steel Bridge Company has the contract, at \$4,577, for the construction of the Fifth street bridge.

Butler, Pa.—The State Highway Department at Harrisburg opened bids for the construction of a new roadway on the New Castle road in Butler township, the improvements to the road to extend about 15,000 feet, or practically three miles. People owning property in the vicinity of the road have expressed a desire that the road be paved and included in the bids are estimates for the paving of the road as well as for macadamizing. The bids received were as follows: The Northwestern Construction Company, Franklin, \$33,231.20, local sandstone bottom, Butler County limestone top, C. I. P.; \$32,675.28, local sandstone bottom, Butler County limestone top, cor. pipe; \$48,621, local crushed stone foundation, DuBois & Butler wire cut brick, C. I. P.; \$48,265.08, local crushed stone foundation, Butler wire cut brick, cor. pipe; \$50,501, local crushed stone foundation, DuBois & Butler repressed block.

Phoenix Construction Company, New Kingston, \$40,648.45, Butler County stone, brick not specified, C. I. P.

Ridge Bros. Company, Pittsburg, \$33,641.30, native stone bottom, limestone top, C. I. P.; \$32,841.30, native stone bottom, limestone top, cor. pipe.

John Schaffner, Butler, \$32,014.24, slag or native stone bottom, West Winfield limestone top, C. I. P.; \$31,708.24, slag or native stone bottom, West Winfield limestone top, cor. pipe; \$51,172.24, slag or native stone foundation, DuBois & Butler block, C. I. P.; \$50,866.24, slag or native stone foundation, DuBois & Butler block, cor. pipe.

N. J. Boyer, Butler, \$32,415.44, native stone bottom, Croup, Lawall and Kradel farms, W. Winfield stone top, C. I. P.; \$31,558.64, native stone from Croup, Lawall and Kradel farms, W. Winfield limestone top, cor. pipe; \$44,408.44, native crushed stone or slag founda-

tion, DuBois & Butler brick or Pennsylvania Clay Company W. C. brick, C. I. P.; \$43,551.64, native crushed stone or slag foundation, DuBois & Butler brick or Pennsylvania Clay Company W. C. brick, cor. pipe.

Kinchart Bros., East Liverpool, O.; \$34,174.80; local sandstone bottom; West Winfield limestone top, C. I. P.; \$34,074.40, local sandstone bottom, West Winfield limestone top, cor. pipe; \$42,928.80, local sandstone bottom, Kittanning Clay Manufacturing Company brick, C. I. P.; \$42,828.40, local sandstone bottom, Kittanning Clay Manufacturing Company brick, cor. pipe; \$44,708.40, local sandstone bottom, James M. Porter shale brick, cor. pipe; \$45,118.40, local sandstone bottom; Croton Limestone and Brick Company's brick, cor. pipe; \$46,588.40, slag foundation, Kittanning Clay Manufacturing Company's brick, cor. pipe; \$47,528.40, gravel foundation, Kittanning Clay Manufacturing Company's brick, cor. pipe.

Elmer M. Love & Son, Corry; \$38,949.94, native stone bottom, Lawrence or Butler County limestone top, C. I. P.; \$38,574.95, native stone bottom, Lawrence or Butler County limestone top, cor. pipe; \$52,220.44, crushed stone foundation, brick not specified; \$50,105.44, gravel foundation, C. I. P.; \$51,280.44, furnace slag foundation, C. I. P.

Connellsville, Pa.—Contractors Hiram & Guard, of Connellsville, have been awarded the contract for the laying of 800 feet of 12-inch sewer on Main street, Dawson.

Dickson City, Pa.—Members of the Borough Council opened bids for the construction of five miles of sewer in the town, four proposals in all having been received. The bids were as follows: Spruks Bros., \$1.75 per linear foot, manholes \$45, catchbasins \$60; Dale & Gaynor, \$1.60 per linear foot, manholes \$45, catchbasins \$60; M. A. Donahue, \$1.50 per linear foot, manholes \$35, catchbasins \$50; Stephen Flanagan & Son, \$1.38 per linear foot, manholes \$45, catchbasins \$50; in all probability the Flanagan firm will get the work, as their bid is the lowest.

Easton, Pa.—The Public Property Committee awarded general contract to Andrew Weiss for erecting two fire houses at his bid of \$12,850.

Harrisburg, Pa.—There was no trouble June 22 in getting bids for the paving of Tenth street, from Market to State; Third street, from Emerald to Seneca, and Thompson, from Fourteenth to Fifteenth streets. The maximum price per yard was \$2 and the Barber and Warner-Quinlan Companies both underbid the maximum from one to six cents. The Barber Company was the lower bidder and will be awarded all the contracts. Owing to the wording of the ordinances the Tenth street contract will have to go to Councils for confirmation; the other two contracts were awarded by Highway Commissioner W. W. Caldwell. The bids of yesterday were for 6,890 square yards of sheet asphalt paving and 4,290 feet of granite curbing. The maximum price for the curbing was \$1.25 per linear foot. The bids follow: Barber Company: Tenth street, \$1.98 paving, 96 cents curbing; Third street, \$1.94 paving, 96 cents curbing; Thompson street, \$1.98 paving, 96 cents curbing. Warner-Quinlan: Tenth street, \$1.99 paving, 98 cents curbing; Third street, \$1.97 paving, 98 cents curbing; Thompson street, \$1.98 paving, and 98 cents curbing.

State Highway Commissioner Hunter has opened bids for building three stretches of State highway, which are to be constructed between this city and Linglestown. Two of the sections are in Susquehanna township. One runs from the end of the asphalt at the city line on Walnut street to Penbrook Borough, 3,450 feet; the other runs from the eastern edge of Penbrook to the line between Susquehanna and Lower Paxton townships, 3,855 feet. These stretches aggregate 9,305 feet and the job was bid in as one. From incomplete tabulations it appears that either the Juniata Paving Company or Charles P. Walter, both of this city, will get the contract. A third stretch is 8,350 feet from the line between Susquehanna and Lower Paxton eastward. McCormick & Company, of Philadelphia, who are building the Mulberry street bridge, appear to be low on this job. The roads are to be 16 feet wide. The aggregate length of the improvement is to be 17,655 feet and the improvement in the old Jonestown road will be immeasurable.

Highway Commissioner Caldwell opened bids for paving and curbing three sections of streets. The Barber Company was low bidder on two and the Warner-Quinlan Company on one. The bids were as follows: Tenth street, Market to State, 4,100 yards paving and 2,200 feet of curbing; Barber, \$1.98 for paving and 96 cents for granite or steel-bound granolithic curbing; Warner-Quinlan, \$1.99 and 98 cents.

Third street, Emerald to Seneca, 2,130 yards paving and 1,130 feet of curbing; Barber, \$1.94 and 96 cents; Warner-Quinlan, \$1.97 and 98 cents.

Thompson street, Fourteenth to Fifteenth, 600 yds. paving, 960 ft. curb; Barber, \$1.98

and 96 cents, and Warner-Quinlan, \$1.98 and 98 cents.

Johnstown, Pa.—Councils in joint session awarded contracts for street paving. George W. Clark, the Eighth Ward paving contractor, got the long end of the street improvement contracts and will do about three-fourths of the work. Other successful bidders were Bader & Co., Charles H. Suppes, Jr., John V. Best, E. A. Freshwater & Son, and Fulton & James. The bids of John F. Hochstein were rejected because of failure to comply with certain conditions specified in the ordinance.

George W. Clark was awarded the following contracts: John street, First and Second Wards, \$1.38 per square yard; Lardin alley, Third Ward, \$1.41; Feeder alley, Third Ward, \$1.37; Feeder and Strawberry alleys, Fourth Ward, \$1.43; Haynes street, Fifth Ward, \$1.38; Thomas avenue, Sixth Ward, \$1.40; Sherman street, Sixth Ward, \$1.38; Maple avenue, Eleventh Ward, \$1.35; Iron street, Fourteenth Ward, \$1.55; Second avenue, Fifteenth Ward, \$1.55; Third avenue, Fifteenth and Sixteenth Wards, \$1.55; McConaughy street, Sixteenth Ward, \$1.55; Bond street, Seventeenth Ward, \$1.34; Highland avenue, Seventeenth Ward, \$1.45; Meadow alley, Tenth Ward (cobblestones), 53 cents per square yard; Horrocks street, Tenth Ward (cobblestones), 55 cents per square yard.

Bader & Co. were awarded the following contracts: Horner street, Seventh Ward, \$1.50; Adam street, Ninth Ward, \$1.55; Cooper avenue, Twenty-first Ward, \$1.60; Everhart street, Sixth Ward (cobblestones), 50 cents per square yard.

Freshwater & Sons were awarded the contract for paving Honan avenue, in the Fourteenth Ward, with firebrick at \$1.68 a square yard, and Chandler avenue, in Morrellville, at \$1.65 a square yard.

Charles H. Suppes, Jr., got the contract for paving Turner alley in the Thirteenth Ward with firebrick at \$1.68 a square yard.

John V. Best received the contract for paving Sell street in the Roxbury district with cobblestones, his bid being 80 cents a square yard.

James & Fulton were awarded the contract for paving the Ebensburg road with cobblestones, the Twelfth Ward section at 74 cents a square yard and the Thirteenth Ward section at 81 cents a square yard.

The bids submitted were as follows:

Bader & Co. (Mack brick): John street, First and Second Wards, \$1.50; Lardin alley, \$1.50; Feeder alley and Strawberry alley, \$1.51; Haynes street, \$1.51; Thomas avenue, \$1.56; Sherman street, \$1.55; Horner street, \$1.50; Adam street, \$1.50; Maple avenue, \$1.50; Turner alley, \$1.41; Second avenue, \$1.60; Third avenue, \$1.60; McConaughy street, \$1.66; Bond street, \$1.65; Highland avenue, \$1.68; J street, \$1.61; Chandler avenue, \$1.66; Cooper avenue, \$1.60; Everhart street, cobblestones, 50 cents.

Bader & Co. (Porter metropolitan block): John street, both sections, \$1.41; Lardin alley, \$1.47; Feeder alley, \$1.42; Feeder and Strawberry alleys, \$1.42; Haynes street, \$1.42; Thomas avenue, \$1.47; Sherman street, \$1.46; Horner street, \$1.40; Adam street, \$1.41; Maple avenue, \$1.42; Turner alley, \$1.32; Second avenue, \$1.51; Third avenue, \$1.51; McConaughy street, \$1.57; Bond street, \$1.56; Highland avenue, \$1.59; J street, \$1.52; Chandler avenue, \$1.57; Cooper avenue, \$1.51.

Bader & Co. (Savage brick): John street complete, \$1.40; Lardin alley, \$1.46; Feeder alley, \$1.41; Feeder and Strawberry alleys, \$1.41; Haynes street, \$1.41; Thomas avenue, \$1.46; Sherman street, \$1.45; Horner street, \$1.38; Adam street, \$1.40; Maple avenue, \$1.45; Turner alley, \$1.31; Second and Third avenues, \$1.50; McConaughy street, \$1.56; Bond street, \$1.55; Highland avenue, \$1.58; J street, \$1.51; Chandler avenue, \$1.56; Cooper avenue, \$1.50.

Bader & Co. (Pittsburg and Buffalo Company block): John street, complete, \$1.37; Lardin alley, \$1.43; Feeder alley, \$1.38; Feeder and Strawberry alleys, \$1.38; Haynes street, \$1.38; Thomas avenue, \$1.43; Sherman street, \$1.37; Adam street, \$1.37; Maple avenue, \$1.42; Turner alley, \$1.38; Second and Third avenues, \$1.47; McConaughy street, \$1.53; Bond street, \$1.52; Highland avenue, \$1.55; J street, \$1.48; Chandler avenue, \$1.53; Cooper avenue, \$1.57.

George W. Clark (Mack brick): John street, complete, \$1.38; Lardin alley, \$1.41; Feeder alley, \$1.37; Feeder and Strawberry alleys, \$1.43; Haynes street, \$1.38; Thomas avenue, \$1.40; Sherman street, \$1.38; Horner street, \$1.75; Adam street, \$1.55; Maple avenue, \$1.35; Turner alley, \$1.66; Honan avenue, \$1.70; Iron street, \$1.55; Second avenue, \$1.55; Third avenue, \$1.55; McConaughy street, \$1.55; Bond street, \$1.34; Highland avenue, \$1.45; J street, \$1.63; Chandler avenue, \$1.70; Cooper avenue, \$1.70.

Mr. Clark also bid 3 cents a square yard cheaper for the Porter block and 10 cents a yard for Savage brick.

John V. Best bid on Mack brick paving with the stipulation that the Porter brick of

the American Sewer Pipe Company would be furnished for 1 cent less per square yard and the Metropolitan brick 2 cents less a square yard. His bids on the Mack brick were as follows:

John street, complete, \$1.52; Lardin alley, \$1.54; Feeder alley, \$1.54; Feeder and Strawberry alleys, \$1.54; Haynes street, \$1.51; Thomas avenue, \$1.52; Sherman street, \$1.60; Horner street, \$1.57; Adam street, \$1.54; Maple avenue, \$1.41; Everhart street (cobblestones), 60 cents; Sell street (cobblestones), 80 cents.

C. H. Suppes, Jr., bid on Mack brick with the stipulation that Porter brick would cost 9 cents less a square yard, Pittsburg and Buffalo brick 14 cents less and Savage brick 9 cents less. The bids: John street, \$1.50; Lardin alley, \$1.55; Feeder alley, \$1.55; Feeder and Strawberry alleys, \$1.55; Haynes street, \$1.51; Horner street, \$1.62; Adam street, \$1.51; Maple avenue, \$1.47; Turner alley, \$1.36; Bond street, \$1.67; Highland avenue, \$1.67.

Fulton & James bid on Mack brick with the stipulation that cinder filling would cost 10 cents a square yard less and Porter brick 10 cents less. The bids on Mack brick were as follows: John street, \$1.69½; Haynes street, \$1.69½; Sherman street, \$1.74; Adam street, \$1.68½; Turner alley, \$1.56; Iron street, \$1.74½; McConaughy street, \$1.73½; Chandler avenue, \$1.81½; Cooper avenue, \$1.78.

On cobblestone paving the same firm bid as follows: Everhart street, 67½ cents; Sell street, \$1; Meadow alley, 65½ cents; Horrocks street, 69 cents; Ebensburg road, Twelfth Ward, 74 cents; Ebensburg road, Thirteenth Ward, 81 cents.

E. A. Freshwater & Sons quoted prices with the following provisions: For Mack brick, add 6 cents; for American Sewer Pipe Company's brick, add 3 cents and for Porter brick add 1 cent. The bids were as follows: John street, \$1.59; Lardin alley, \$1.70; Feeder alley, \$1.68; Feeder and Strawberry alleys, \$1.71; Haynes street, \$1.74; Thomas avenue, \$1.64; Sherman street, \$1.73; Horner street, \$1.60; Adam street, \$1.55; Maple avenue, \$1.51; Turner alley, \$1.73; Honan avenue, \$1.62; Iron street, \$1.74; Second avenue, \$1.68; Third avenue, \$1.54; McConaughy street, \$1.66; Bond street, \$1.64; Highland avenue, \$1.67; J street, \$1.80; Chandler avenue, \$1.59; Cooper avenue, \$1.61.

Scranton, Pa.—Bids have been opened by Director Wormser for the contract for rebuilding a fire engine. The bidders were: The Waterford, N. Y., \$1,985; the American La France Engine Co., \$1,695.

Wilkes-Barre, Pa.—Many bids were received by the Joint Street Committee for the resurfacing and repairing of several of the city streets. The lowest bidders were John P. Schmitt and Joseph L. Dunn. This firm offered a five-year guarantee and submitted prices as follows: Concrete, \$5 per cubic yard; binder, \$7.50 per cubic yard; Acme asphalt, not including binder, \$1.17 per square yard; Acme asphalt, including binder, \$1.38 per square yard.

Wilmot, S. D.—Contract for constructing culverts was let to E. T. Haugsjaa.—R. H. Eastman, Town Clerk.

Johnson City, Tenn.—Kelley Brothers submitted the only bid and were awarded contract for 13,000 square yards of 4-inch brick paving on 6-inch concrete base, including excavation, at \$2.55 per square yard, and for setting 6,100 linear feet new concrete curb, at 60 cents.—L. N. Wilson, Jr., City Engineer.

Sweetwater, Tenn.—The Board of Mayor and Aldermen has signed a contract with Guild & Co., of Chattanooga, to put in a system of water works for the town; work is to begin at once and is to be completed by Oct. 1; the town has twice voted to issue bonds to the amount of \$30,000 for water works.

Ft. Worth, Tex.—S. M. Haisie, Jr., has the contract for the construction of a steel and concrete bridge over the Clear Fork, on the Stove Foundry road; also for the construction of a bridge over the village creek; total cost, about \$5,800.

Contract for paving with vitrified brick on concrete base, North Spring avenue, from Ferguson to Common street, about 3,700 square yards, was let to Ocker Bros., Waco and Texarkana, Tex.—John H. Bonner, Mayor; J. T. White, City Engineer.

Ogden, Utah.—Contracts for the construction of sidewalks have been awarded as follows: Twenty-second street, 5½ blocks, Peter S. Wilson, at \$6,150, or 14.032 cents per square foot; Twenty-fourth street, five blocks, J. P. O'Neill Construction Company, at \$5,500, or 14.92 cents per square foot; Quincy avenue, five blocks, Wheelwright Company, at \$4,090, or 13.06 cents per square foot.

Contracts for curbs and gutters have been awarded as follows: Twenty-fifth street, five blocks, J. P. O'Neill Construction Company, at \$7,570, or \$1.3567 per linear foot; Van Buren avenue, two blocks, W. J. Moran Company, at \$2,406, or \$1.3498 per linear foot.

Proposals

SEWERS

Portsmouth, Va., June 20, 1908.

Sealed proposals will be received at the office of the City Clerk, Portsmouth, Va., addressed to "Sewerage Committee," until 8 p.m., July 28, 1908, for furnishing all materials and labor in constructing a Sanitary Sewerage System for the Fifth Ward, this city.

The work consists of about nine miles of pipe sewers from 24 to 8 inches diameter, besides 4-inch house laterals, cast iron discharge and air pipe, with manholes and flushtanks.

Plans and profiles can be examined and specifications, instructions and forms of proposal can be secured at the office of the City Engineer.

Bids must be made in strict accordance with the Instructions to Bidders, attached to the specifications.

The right to reject any or all bids is specially reserved.

A. AUG. BILISOLY,

WM. JONES WILLIAMS,

Chairman Sewerage Committee.

BASCOM SYKES,

City Engineer.

SEWER AND WATER WORKS EQUIPMENT

Okmulgee, Okla.

Bids will be received by Hon. W. S. Bell and by him publicly opened on Monday, July 20, 1908, for the purchase by the city of Okmulgee of standard vitrified sewer pipe, manholes and flush tanks, standard water works, hydrants and valves, one 60-H.P. gas engine direct connected to a 35-KW., 3-phase, 60-cycle alternator or an automatic high speed engine and generator of the same capacity; one triplex pump direct connected to electric motor. Specifications and instructions to bidders may be had by addressing the O'Neil Engineering Company, Dallas, Tex.

STANDPIPE OR RESERVOIR

Grand Haven, Mich.

The City of Grand Haven, Mich., is about to erect a standpipe or reservoir on top of a hill 1,500 feet from pumping station; size to be from 50 to 75 feet in diameter, 25 feet high; to be built of steel and erected on a concrete foundation; to be connected with a 12-inch cast iron pipe from pumping station. Pipe to be laid below frost line, approximately 4½ feet deep.

Bidders are expected to make plans and specifications from a sketch prepared by the Superintendent of Public Works, Grand Haven, Mich.

WALDO FRANCISCO,

Superintendent.

AQUEDUCT

Board of Public Works.

Los Angeles, Cal., May 15, 1908.

Sealed proposals will be received at the office of the Board of Public Works, July Seventeen, 1908, for the construction of the Jawbone Division of the Los Angeles Aqueduct, with a capacity of four hundred second feet, including about forty-three thousand lineal feet of lined tunnel, sixty thousand lineal feet of lined conduit, and three hundred forty thousand cubic yards of excavation. The work is subdivided into three sections, and separate or lump sum proposals will be received. Plans and specifications may be obtained from the Board.

HORACE B. FERRIS,

Secretary.

SALE OF BOILERS, ENGINES, PUMPS, ETC.

LEGAL NOTICE

Sealed bids will be received by the Board of Public Service of the City of Cincinnati, State of Ohio, at the office of said Board, until 12 o'clock noon of Monday, July 13, 1908, for the sale of boilers, pumping engines, deep well pumps, boiler feed pumps, hoisting engines, horizontal engines, tools, etc., at

Linwood Pumping Station,
Cumminsville Pumping Station,
Westwood Pumping Station,
Front Street Pumping Station,
Mt. Hope Pumping Station,
Hunt Street Pumping Station.

List and descriptions can be procured in said office.

Each bid must contain the full name of every person or company interested in the same and be accompanied by a bond in the sum of twenty-five per cent. of the amount of bid, to the satisfaction of the Board, or a certified check on some solvent bank, as a guaranty that if the bid is accepted a contract will be entered into and its performance properly secured. Should any bid be rejected, such check will be forthwith returned to the bidder; and should any bid be accepted, such check will be returned upon the proper execution and securing of the contract.

Bidders are required to use the printed forms. The right is reserved to reject any and all bids.

By order of the Board of Public Service.

JOHN J. WENNER, Clerk.

June 13, 1908.

(25-2)

ASPHALT BLOCK PAVING

Office of the Commissioners,
District of Columbia, Washington,
June 15, 1908.

Sealed proposals will be received at this office until 12 o'clock noon, Saturday, July 11, 1908, for laying asphalt block pavements. Blank forms of proposal, specifications, and all necessary information may be obtained at the office of the Engineer Commissioner, D. C.

HENRY B. F. MACFARLAND,

HENRY L. WEST,

JAY J. MORROW,

Commissioners, D. C.

STREET PAVING

Lawrence, Mass.

Sealed proposals will be received at the office of City Clerk of the City of Lawrence, Mass., until 3 o'clock p.m. of Wednesday, July 8, 1908, for 28,000 square yards, more or less, of street paving with wooden blocks on concrete base.

Plans and specifications may be seen at the office of the City Engineer, City Hall.

A. D. MARBLE,

City Engineer.

C. J. CORCORAN,
City Clerk.

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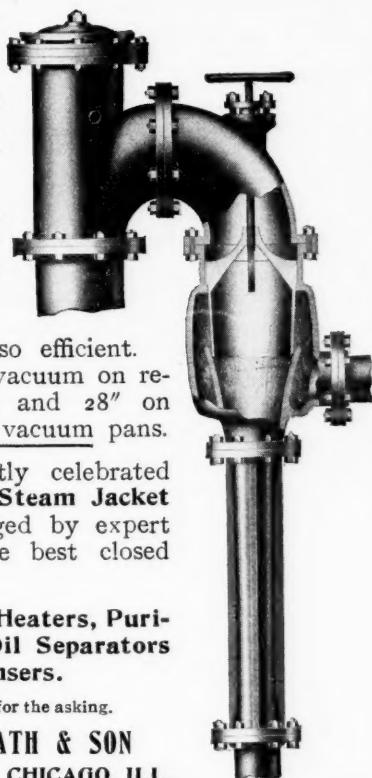
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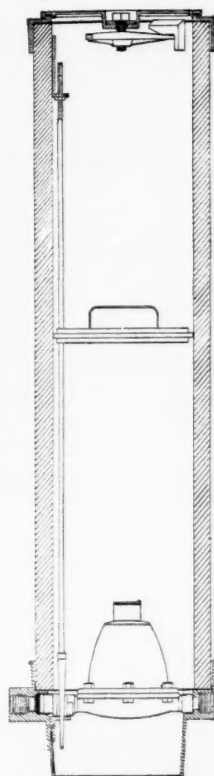
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